TOSHIBA

Satellite® R10/R15 Series User's Guide

If you need assistance:

❖ Toshiba's Support Website
pcsupport.toshiba.com

❖ Toshiba Global Support Centre
Calling within the United States (800) 457-7777
Calling from outside the United States (949) 859-4273

For more information, see "If Something Goes Wrong" on page 193 in this guide.

2

Model: Satellite R10/R15 Series

ReWritable CD/DVD Drives

The computer system you purchased may include a ReWritable CD and/or DVD drive(s), among the most advanced data storage technologies available. As with any new technology, you must read and follow all set-up and usage instructions in the applicable user guides and/or manuals enclosed. If you fail to do so, this product may not function properly and you may lose data or suffer other damage. **TOSHIBA AMERICA INFORMATION SYSTEMS ("TOSHIBA"), ITS AFFILIATES AND SUPPLIERS DO NOT WARRANT THAT OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR FREE. YOU AGREE THAT TOSHIBA, ITS AFFILIATES AND SUPPLIERS SHALL HAVE NO RESPONSIBILITY FOR DAMAGE TO OR LOSS OF ANY BUSINESS, PROFITS, PROGRAMS, DATA OR REMOVABLE STORAGE MEDIA ARISING OUT OF OR RESULTING FROM THE USE OF THE PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.**

Protection of Stored Data

For your important data, please make periodic back-up copies of all the data stored on the hard disk or other storage devices as a precaution against possible failures, alteration, or loss of the data. **IF YOUR DATA IS ALTERED OR LOST DUE TO ANY TROUBLE, FAILURE OR MALFUNCTION OF THE HARD DISK DRIVE OR OTHER STORAGE DEVICES AND THE DATA CANNOT BE RECOVERED, TOSHIBA SHALL NOT BE LIABLE FOR ANY DAMAGE OR LOSS OF DATA, OR ANY OTHER DAMAGE RESULTING THEREFROM. WHEN COPYING OR TRANSFERRING YOUR DATA, PLEASE BE SURE TO CONFIRM WHETHER THE DATA HAS BEEN SUCCESSFULLY COPIED OR TRANSFERRED. TOSHIBA DISCLAIMS ANY LIABILITY FOR THE FAILURE TO COPY OR TRANSFER THE DATA CORRECTLY**.

3

Critical Applications

The computer you have purchased is not designed for any "critical applications." "Critical applications" means life support systems, medical applications, connections to implanted medical devices, commercial transportation, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage.

ACCORDINGLY, TOSHIBA, ITS AFFILIATES AND SUPPLIERS DISCLAIM ANY AND ALL LIABILITY ARISING OUT OF THE USE OF THE COMPUTER PRODUCTS IN ANY CRITICAL APPLICATIONS. IF YOU USE THE COMPUTER PRODUCTS IN A CRITICAL APPLICATION, YOU, AND NOT TOSHIBA, ASSUME FULL RESPONSIBILITY FOR SUCH USE.

FCC Notice "Declaration of Conformity Information"

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

❖ Reorient or relocate the receiving antenna.

❖ Increase the separation between the equipment and receiver.

❖ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

❖ Consult the dealer or an experienced radio/TV technician for help.

NOTE

Only Peripherals complying with the FCC Class B limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by Toshiba is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer's parallel port, monitor port, USB port, PS/2 port®,i.LINK® port and microphone jack. Changes or modifications made to this equipment not expressly approved by Toshiba or parties authorized by Toshiba could void the user's authority to operate the equipment.

4

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

❖ This device may not cause harmful interference.

❖ This device must accept any interference received, including interference that may cause undesired operation.

Contact either:

❖ Toshiba's Support Website at pcsupport.toshiba.com

❖ Or call the Toshiba Global Support Centre:

Within the United States at (800) 457-7777

Outside the United States at (949) 859-4273

Industry Canada requirement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conformé à la norme NMB-003 du Canada.

FCC requirements

The following information is pursuant to FCC CFR 47, Part 68 and refers to internal modems.

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, the information must be provided to the telephone company.

The modem connects to the telephone line by means of a standard jack called the USOC RJ11C.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC part 68 rules and requirements adopted by the ACTA. It is designed to be connected to a compatible modular jack that is also compliant.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by the ## are the REN without a

decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Telephone Company Procedures

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

If Problems Arise

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advanced notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

If trouble is experienced with this equipment, for repair or limited warranty information, please contact Toshiba Corporation, Toshiba America Information Systems, Inc. or an authorized representative of Toshiba, or the Toshiba Support Centre within the United States at (800) 457-7777 or Outside the United States at (949) 859-4273. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Disconnection

If you should ever decide to permanently disconnect your modem from its present line, please call the telephone company and let them know of this change.

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including Fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number

6

provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your fax transmission, refer to the fax software instructions installed on this computer.

Alarm Equipment

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Instructions for IC CS-03 Certified Equipment

1 NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

2 The user manual of analog equipment must contain the equipment's Ringer Equivalence Number (REN) and an explanation notice similar to the following:

The Ringer Equivalence Number (REN) of this device can be found on the label affixed to your computer.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

3 The standard connecting arrangement (telephone jack type) for this equipment is jack type(s): USOC RJ11C.

Wireless Interoperability

The TOSHIBA Wireless LAN Mini PCI Card products are designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS) radio technology, and is compliant to:

❖ The IEEE 802.11 Standard on Wireless LANs (Revision A/B/G), as defined and approved by the Institute of Electrical and Electronics Engineers.

❖ The Wireless Fidelity (Wi-Fi) certification as defined by the Wi-Fi Alliance. The "Wi-Fi CERTIFIED" logo is a certification mark of the Wi-Fi Alliance.

CAUTION Bluetooth™ and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection.

If you should experience any such problem, immediately turn off your Bluetooth™ or Wireless LAN device.

Please contact Toshiba PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or http://www.pcsupport.global.toshiba.com in the United States for more information.

CAUTION This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range.

8

Wireless LAN and your Health

Wireless LAN products, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by Wireless LAN devices however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Wireless LAN is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Wireless LAN may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

❖ Using the Wireless LAN equipment on board of airplanes, or

❖ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the Wireless LAN device prior to turning on the equipment.

Regulatory Information

The TOSHIBA Wireless LAN Mini PCI Card must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. This device complies with the following radio frequency and safety standards.

Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

CAUTION The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's Web site www.hc-sc.gc.ca/rpb. The RF device shall not be co-located with any other transmitter that has not been tested with this device.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit étre prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit etre utilize a l'interieur et devrait etre place loin des fenetres afin de Fournier un ecram de blindage maximal. Si le matriel (ou son antenne d'emission) est installe a l'exterieur, il doit faire l'objet d'une licence.

CAUTION This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range. Industry Canada requires this product to be used indoors for frequency range 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users of the 5.25 GHz to 5.35 GHz and 5.65 GHz to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

Europe – EU Declaration of Conformity C E ①

❖ This device complies with the essential requirements of the R&TTE Directive 1999/5/EC with essential test suites as per standards:

EN 60950 Safety of Information Technology equipment.

ETS 300 328 Technical requirements for radio equipment.

ETS 300 826 General EMC requirements for radio equipment.

10

English:	Hereby, TOSHIBA Corp. Digital Media Network Company, declares that this Radio LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Finnish:	Valmistaja TOSHIBA Corp. Digital Media Network Company vakuuttaa täten että Radio LAN device tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Dutch:	Hierbij verklaart TOSHIBA Corp. Digital Media Network Company dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
	Bij deze TOSHIBA Corp. Digital Media Network Company dat deze Radio LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
French:	Par la présente TOSHIBA Corp. Digital Media Network Company déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
	Par la présente, TOSHIBA Corp. Digital Media Network Company déclare que ce Radio LAN device est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.
Swedish:	Härmed intygar TOSHIBA Corp. Digital Media Network Company att denna Radio LAN device står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Danish:	Undertegnede TOSHIBA Corp. Digital Media Network Company erklærer herved, at følgende udstyr Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF
German:	Hiermit erklärt TOSHIBA Corp. Digital Media Network Company, dass sich dieser/diese/dieses Radio LAN device in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)
	Hiermit erklärt TOSHIBA Corp. Digital Media Network Company die Übereinstimmung des Gerätes Radio LAN device mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien)
Greek:	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ TOSHIBA Corp. Digital Media Network Company ΔΗΛΩΝΕΙ ΟΤΙ Radio LAN device ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ

Italian:	Con la presente TOSHIBA Corp. Digital Media Network Company dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Spanish:	Por medio de la presente TOSHIBA Corp. Digital Media Network Company declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Portuguese:	TOSHIBA Corp. Digital Media Network Company declara que este Radio LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

USA – Federal Communications Commission (FCC)

This device complies with Part 15 of FCC Rules. Operation of the devices in a Wireless LAN System is subject to the following two conditions:

❖ This device may not cause harmful interference.

❖ This device must accept any interference that may cause undesired operation.

TOSHIBA is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this TOSHIBA Wireless LAN Mini PCI Card, or the substitution or attachment of connecting cables and equipment other than specified by TOSHIBA.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Caution: Exposure to Radio Frequency Radiation

The radiated output power of the TOSHIBA Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits. Nevertheless, the TOSHIBA Wireless LAN Mini PCI Card shall be used in such a manner that the potential for human contact during normal operation is minimized. In normal operating configuration, the LCD in the upright position, the distance between the antenna and the user should not be less than 20 cm. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Antenna(s) used in 5.15 GHz to 5.25 GHz frequency band must be integral antenna which provide no access to the end user.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

12

Caution: Radio Frequency Interference Requirements

This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range. FCC requires this product to be used indoors for frequency range 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users of the 5.25 GHz to 5.35 GHz and 5.65 GHz to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

NOTE   The above Caution information applies to products that operate with an 802.11a device.

Taiwan

Article 14	Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.
Article 17	Any use of low power radio frequency electric machinery shall not affect the aviation safety and interfere with legal communications. In event that any interference is found, the use of such electric machinery shall be stopped immediately, and reusing of such products can be resumed until no interference occurs after improvement.

The legal communications mentioned in the above item refer to radio communications operated in accordance with telecommunication laws and regulations.

Low power radio frequency electric machinery shall resist against interference from legal communications or from industrial, scientific and medical radio emission electric machinery.

13

Using this Equipment in Japan

In Japan, the frequency bandwidth of 2,400 MHz to 2,483.5 MHz for second generation low-power data communication systems such as this equipment overlaps that of mobile object identification systems (premises radio station and specified low-power radio station).

1. Sticker

Please put the following sticker on devices incorporating this product.

> The frequency bandwidth of this equipment may operate within the same range as industrial devices, scientific devices, medical devices, microwave ovens, licensed radio stations and non-licensed specified low-power radio stations for mobile object identification systems (RFID) used in factory production lines (Other Radio Stations).
> 1. Before using this equipment, ensure that it does not interfere with any of the equipment listed above.
> 2. If this equipment causes RF interference to other radio stations, promptly change the frequency being used, change the location of use, or turn off the source of emissions.
> 3. Contact TOSHIBA Direct PC if you have problems with interference caused by this product to Other Radio Stations.

2. Indication

The indication shown below appears on this equipment.

```
 (1)  (2) (3)
2.4DSOF4
 ■   ■   ■
   (4)
```
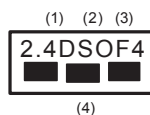
1 2.4: This equipment uses a frequency of 2.4 GHz.

2 DS: This equipment uses DS-SS modulation.

OF: This equipment uses OFDM modulation.

3 The interference range of this equipment is less than 40m.

4 ■ ■ ■ This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz.

It is possible to avoid the band of mobile object identification systems.

3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-13-1100

Direct Dial: 03-3457-5916

Fax: 03-5444-9450

14

Device Authorization

This device obtains the Technical Regulation Conformity Certification and the Technical Conditions Compliance Approval, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law and the Telecommunications Business Law of Japan.

The Name of the radio equipment: refer to the equipment label provided on the computer

JAPAN APPROVALS INSTITUTE FOR TELECOMMUNICATIONS EQUIPMENT

Approval Number: D01-1128JP

TELECOM ENGINEERING CENTER Approval Number: 03NY.A0018, 03GZDA0017

The following restrictions apply:

- ❖ Do not disassemble or modify the device.
- ❖ Do not install the embedded wireless module into other device.
- ❖ 5.17 GHz to 5.23 GHz for indoor use only.

Radio approvals for wireless devices

NOTE The following information is dependent on what type of wireless device is in your computer.

Approved Countries/Regions for use for the Atheros AR5BMB-43/44 Mini PCI Wireless network adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION Do not use this equipment except in the countries/regions in the following table.

NOTE This device works on passive scan only.

A peer-to-peer mode is not available in 802.11a and Turbo Mode.

802.11b (2.4 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

Europe - Restrictions for use of 2.4 GHz Frequencies in European Community Countries

België/ Belgique:	For private usage outside buildings across public grounds over less than 300m no special registration with IBPT/BIPT is required. Registration to IBPT/BIPT is required for private usage outside buildings across public grounds over more than 300m. For registration and license please contact IBPT/BIPT.
	Voor privé-gebruik buiten gebouw over publieke groud over afstand kleiner dan 300m geen registratie bij BIPT/IBPT nodig; voor gebruik over afstand groter dan 300m is wel registratie bij BIPT/IBPT nodig. Voor registratie of licentie kunt u contact opnemen met BIPT.
	Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au-dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.
Deutschland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Anmeldung im Outdoor-Bereich notwendig, aber nicht genehmigungspflichtig.Bitte mit Händler die Vorgehensweise abstimmen.
France:	Restricted frequency band: only channels 1 to 7 (2400 MHz and 2454 MHz respectively) may be used outdoors in France. Please contact A.R.T. (http://www.art-telecom.fr) for applicable procedures to follow.
	Bande de fréquence restreinte: seuls les canaux 1- 7 (2400 et 2454 MHz respectivement) doivent être utilisés endroits extérieur en France. Vous pouvez contacter l'Autorité de Régulation des Télécommuniations (http://www.art-telecom.fr) pour la procédure à suivre.
Italia:	License required for indoor use. Use with outdoor installations not allowed.

	E'necessaria la concessione ministeriale anche per l'uso interno. Verificare con i rivenditori la procedura da seguire.
Nederland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Licentie verplicht voor gebruik met buitenantennes. Neem contact op met verkoper voor juiste procedure.

802.11a (5 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

Turbo Mode (5 GHz)

Canada	USA	

Europe - Restrictions for use of 5 GHz Frequencies in European Community Countries

European Community Countries	5150-5250 MHz Channels: 36, 40, 44, 48 Indoor Only	5250-5350 MHz Channels: 52, 56, 60, 64 Indoor Only	5470-5725 MHz Channels: 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140 Indoor/Outdoor
Austria	O	x	x
Belgium, France, Switzerland/Lichtenstein	O	O	x
Denmark, Finland, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, UK	O	O	O
Iceland, Spain	O	O	O

O: allowed ×: forbidden

❖ To remain in conformance with European spectrum usage laws for Wireless LAN operation, the above 2.4 GHz and 5 GHz channel limitations apply. The user should use the wireless LAN utility to check the current channel of operation. If operation is occurring outside of the allowable frequencies as listed above, the user must cease operating the Wireless LAN at that location and consult the local technical support staff responsible for the wireless network.

❖ The 5 GHz Turbo mode feature is not allowed for operation in any European Community country.

❖ This device must not be operated in ad-hoc mode using channels in the 5 GHz bands in the European Community.   Ad-hoc mode provides a direct communication between two client devices without a Wireless LAN Access Point.

❖ This device must be used with Access Points that have employed and activated a radar detection feature required for European Community operation in the 5 GHz bands. This device will operate under the control of the Access Point in order to avoid operating on a channel occupied by any radar system in the area. The presence of nearby radar operation may result in temporary interruption of operation of this device. The Access Point's radar detection feature will automatically restart operation on a channel free of radar. You may consult with the local technical support staff responsible for the wireless network to ensure the Access Point device(s) are properly configured for European Community operation.

Approved Countries/Regions for use for the Atheros AR5001X Mini PCI Wireless network adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION Do not use this equipment except in the countries/regions in the following table.

NOTE This device works on passive scan only.

A peer-to-peer mode is not available in 802.11a and Turbo Mode.

18

802.11b (2.4 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

802.11a (5 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

Turbo Mode (5 GHz)

Canada	USA	

Approved Countries/Regions for use for the Intel® PRO/Wireless LAN 2100 3B Mini PCI Adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION Do not use this equipment except in the countries/regions in the following table.

Argentina	Australia	Austria
Belgium	Brazil	Canada
Chile	Denmark	Finland
France	Germany	Greece
Iceland	Ireland	Italy
Japan	Liechtenstein	Luxembourg

Mexico	Netherlands	New Zealand
Norway	Peru	Portugal
Singapore	Spain	Sweden
Switzerland	UK	Uruguay
USA	Venezuela	

Approved Countries/Regions for use for the Toshiba Mini PCI Wireless LAN Card

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION   Do not use this equipment except in the countries/regions in the following table.

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Hong Kong	Iceland	Ireland
Italy	Japan	Liechtenstein
Luxembourg	Malaysia	Netherlands
New Zealand	Norway	Philippines
Portugal	Singapore	Spain
Sweden	Switzerland	Thailand
UK	USA	

Bluetooth wireless technology Interoperability

Bluetooth™ Cards from TOSHIBA are designed to be interoperable with any product with Bluetooth wireless technology that is based on Frequency Hopping Spread Spectrum (FHSS) radio technology, and is compliant to:

❖   Bluetooth Specification as defined and approved by The Bluetooth Special Interest Group.

❖   Logo certification with Bluetooth wireless technology as defined by The Bluetooth Special interest Group.

20

CAUTION

Bluetooth wireless technology is a new innovative technology, and TOSHIBA has not confirmed compatibility of its Bluetooth™ products with all PCs and/ or equipment using Bluetooth wireless technology other than TOSHIBA portable computers.

Always use Bluetooth™ cards from TOSHIBA in order to enable wireless networks over two or more (up to a total of seven) TOSHIBA portable computers using these cards. Please contact TOSHIBA PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or http://www.pcsupport.global.toshiba.com in the United States for more information.

When you use Bluetooth™ cards from TOSHIBA close to 2.4 GHz Wireless LAN devices, Bluetooth transmissions might slow down or cause errors. If you detect certain interference while you use Bluetooth™ cards from TOSHIBA, always change the frequency, move your PC to the area outside of the interference range of 2.4 GHz Wireless LAN devices (40 meters/ 43.74 yards or more) or stop transmitting from your PC. Please contact TOSHIBA PC product support on Web site http://www.toshiba-europe.com/ computers/tnt/bluetooth.htm in Europe or http:// www.pcsupport.global.toshiba.com in the United States for more information.

Bluetooth™ and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection. If you should experience any such problem, immediately turn off either one of your Bluetooth™ or Wireless LAN. Please contact Toshiba PC product support on Web site http://www.toshiba-europe.com/computers/tnt/ bluetooth.htm in Europe or http://www.pcsupport.global.toshiba.com in the United States for more information.

Bluetooth wireless technology and your Health

The products with Bluetooth wireless technology, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by devices with Bluetooth wireless technology however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because products with Bluetooth wireless technology operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Bluetooth wireless technology is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific

community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Bluetooth wireless technology may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

❖ Using the equipment with Bluetooth wireless technology on board airplanes, or

❖ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the device with Bluetooth wireless technology prior to turning on the equipment.

Regulatory statements

This product complies with any mandatory product specification in any country/region where the product is sold. In addition, the product complies with the following:

European Union (EU) and EFTA

This equipment complies with the R&TTE directive 1999/5/EC and has been provided with the CE mark accordingly.

Canada — Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device."

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit étre prét à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

22

Caution: FCC Interference Statement

This device complies with part15 of the FCC rules. Operation is subject to the following two conditions:

❖ This device may not cause harmful interference, and

❖ This device must accept any interference received, including interference that may cause undesired operation.

Note that any changes or modifications to this equipment not expressly approved by the manufacturer may void the authorization to operate this equipment.

Caution: Exposure to Radio Frequency Radiation

The radiated output power of the Bluetooth™ Card from TOSHIBA is far below the FCC radio frequency exposure limits. Nevertheless, the Bluetooth™ Card from TOSHIBA shall be used in such a manner that the potential for human contact during normal operation is minimized.

In order to comply with FCC radio-frequency radiation exposure guidelines for an uncontrolled environment, the Bluetooth™ Card from TOSHIBA has to be operated while maintaining a minimum body to antenna distance of 20 cm.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

The Bluetooth™ Card from TOSHIBA is far below the FCC radio frequency exposure limits.

Nevertheless, it is advised to use the Bluetooth™ Card from TOSHIBA in such a manner that human contact during normal operation is minimized.

NOTE   Changes or modifications made to this equipment not expressly approved by TOSHIBA or parties authorized by TOSHIBA could void the user's authority to operate the equipment.

Taiwan

Article 14	Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.

24

3 The interference range of this equipment is less than 10m.

4 This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz. It is impossible to avoid the band of mobile object identification systems.

3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-13-1100

Direct Dial: 03-3457-5916

Fax: 03-5444-9450

Device Authorization

This device obtains the Technical Regulation Conformity Certification, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law of Japan.

The Name of the radio equipment: EYXF2CS

TELECOM ENGINEERING CENTER

Approval Number: 01NYDA1305

The following restrictions apply:

❖ Do not disassemble or modify the device.

❖ Do not install the embedded wireless module into other device.

DVD-ROM, multi-function drive safety instructions

⚠ DANGER The DVD-ROM and multi-function drives employ a laser system. To ensure proper use of this product, please read this instruction manual carefully and retain for future reference.

Never attempt to disassemble, adjust or repair a CD/DVD drive, CD-RW drive, Multi-drive or any other optical drive. You could damage the drive. You would also be exposed to laser light or other safety hazard, resulting in serious injury. Always contact an authorized Toshiba service provider, if any repair or adjustment is required.

25

Location of the required label

(Sample shown below. Location of the label and manufacturing information may vary.)

Product is certified by the manufacturer to comply with DHHS rules 21 CFR sub-chaper J applicable at the date of manufacture.

MANUFACTURED:

Toshiba Corporation
1-1, Shibaura 1-Chome
Minato-Ku, Tokyo 105-0061, Japan

CLASS 1 LASER PRODUCT
LASER KLASSE 1
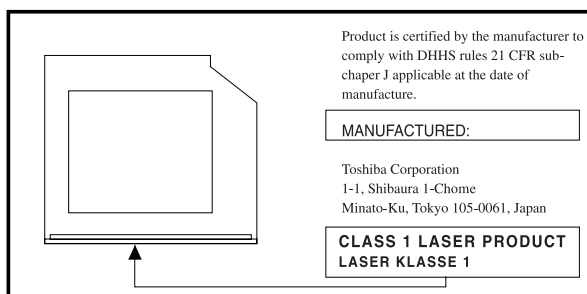
⚠ DANGER

This appliance contains a laser system and is classified as a CLASS 1 LASER LASER PRODUCT. To use this model properly, read the user's guide carefully and keep it for your future reference.

Never attempt to disassemble, adjust or repair a CD/DVD drive, CD-RW drive, Multi-drive or any other optical drive. You could damage the drive. You would also be exposed to laser light or other safety hazard, resulting in serious injury. Always contact an authorized Toshiba service provider, if any repair or adjustment is required.

CLASS 1 LASER PRODUCT
LASSER KLASSE 1

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26

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The information contained in this manual, including but not limited to any product specifications, is subject to change without notice.

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ConfigFree is a trademark of Toshiba Corporation.

Wi-Fi is a registered trademark of the Wi-Fi Alliance.

Dolby - Manufactured by Toshiba under license from Dolby Laboratories/ Dolby and the double-D symbol are trademarks of Dolby Laboratories.

TouchPad is a trademark of Synaptics, Inc.

All other brand and product names are trademarks or registered trademarks of their respective companies.

Computer disposal information

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal, reuse or recycling information, please contact your local government or the Electronic Industries Alliance at www.eiae.org.

Contents

34 Contents

Introduction

Welcome to the world of powerful and portable multimedia computers! With your new Toshiba notebook computer, your access to information can accompany you wherever you go.

You will find that your Microsoft® Windows® XP Tablet PC Edition operating system is already installed on your computer. It offers exciting features and easy Internet access.

NOTE   The product specifications and configuration information are designed for a product Series. Your particular model may not have all the features and specifications listed or illustrated. For more detailed information about the features and specifications on your particular model, please visit Toshiba's Web site at pcsupport.toshiba.com.

While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice. For the most up-to-date product information about your computer, or to stay current with the various computer software or hardware options, visit Toshiba's Web site at pcsupport.toshiba.com.

This guide

This guide introduces the computer's features. You can:

❖   Read the entire guide from beginning to end.

❖   Skim through and stop when a topic interests you.

❖   Use the table of contents and the index to find specific information.

If you are new to computers, or have not used a notebook computer before, read through the first couple of chapters to familiarize yourself with the components of the computer and how to turn it on. After that, seek out whatever interests you most.

Safety icons

This manual contains safety instructions that must be observed in order to avoid potential hazards that could result in personal injuries, damage to your equipment, or loss of data. These safety cautions have been classified according to the seriousness of the risk, and the icons highlight these instructions as follows:

⚠ DANGER   Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING   Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION   Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION   Indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE   Provides important information.

Other icons used

Additional icons highlight other helpful or educational information:

TECHNICAL NOTE: This icon highlights technical information about the computer.

HINT: This icon denotes helpful hints and tips.

DEFINITION: This icon indicates the definition of a term used in the text.

Other documentation

Your computer comes with the following documentation:

❖ This electronic version of the user's guide.

❖ Guides for other programs that may come preinstalled on your computer and for additional programs on your Recovery media (if applicable to your system).

❖ For accessory information, visit Toshiba's Web site at accessories.toshiba.com.

Service options

Toshiba offers a full line of optional service programs to complement its limited warranty. To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site pcsupport.toshiba.com.

If you have a problem or need to contact Toshiba, see "If Something Goes Wrong" on page 193.

Chapter 1

Getting Started

This chapter provides tips for working comfortably, summarizes how to connect components, and explains what to do the first time you use your notebook computer.

Selecting a place to work

Your computer is portable and designed to be used in a variety of circumstances and locations.

Creating a computer-friendly environment

Place the computer on a flat surface that is large enough for the computer and any other items you are using, such as a printer. Leave enough space around the computer and other equipment to provide adequate ventilation. Otherwise, they may overheat.

To keep your computer in prime operating condition, protect your work area from:

❖ Dust, moisture, and direct sunlight.

❖ Liquids and corrosive chemicals.

`CAUTION` If you spill liquid into the computer, turn it off, unplug it from the AC power source, and let it dry out completely before turning it on again.

If the computer does not operate correctly after you turn it back on, contact your Toshiba service representative or your network administrator.

❖ Equipment that generates a strong electromagnetic field, such as stereo speakers (other than speakers that are connected to the computer) or speakerphones.

❖ Rapid changes in temperature or humidity and sources of temperature change such as air conditioner vents or heaters.

❖ Extreme heat, cold, or humidity.

Keeping yourself comfortable

Strain and stress injuries are becoming more common as people spend more time using their computers. With a little care and proper use of the equipment you can work comfortably throughout the day.

`WARNING` Using the computer keyboard incorrectly may result in discomfort and possible injury. If your hands, wrists, and/or arms bother you while typing, stop using the computer and rest. If the discomfort persists, consult a physician.

This section provides hints on avoiding strain and stress injuries. For more information, consult books on ergonomics, repetitive-strain injury, and repetitive-stress syndrome.

Placement of the computer

Proper placement of the computer and external devices is important to avoid stress-related injuries:

❖ Place the computer on a flat surface at a comfortable height and distance. You should be able to type without twisting your torso or neck, and look at the screen without slouching.

❖ If you are using an external monitor, the top of the screen should be no higher than eye level.

❖ If you use a paper holder, set it at about the same height and distance as the screen.

Seating and posture

When using your computer, maintain good posture with your body relaxed and your weight distributed evenly. Proper seating is a primary factor in reducing work strain. Some people find a backless chair more comfortable than a conventional chair. Whichever type you choose, use the following guidelines to adjust your chair for maximum computing comfort.

Below eye level

Approximately 90° angles

Footrest
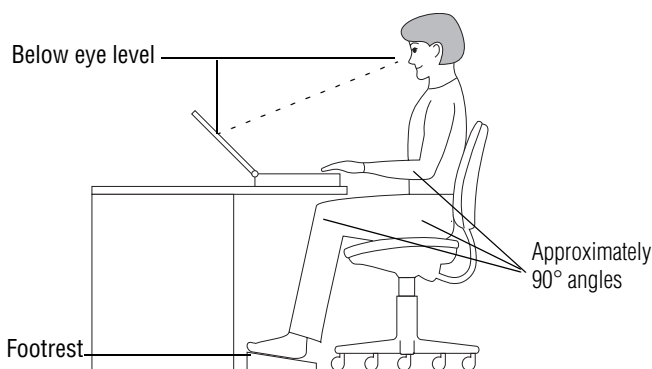
Correct posture and positioning of the computer

❖ Position your chair so that the keyboard is at or slightly below the level of your elbow. You should be able to type comfortably with your shoulders relaxed and your forearms parallel to the floor.

If you are using a conventional chair:

❖ Your knees should be slightly higher than your hips. If necessary, use a footrest to raise the level of your knees and ease the pressure on the back of your thighs.

❖ Adjust the back of your chair so that it supports the lower curve of your spine. If necessary, use a cushion to provide extra back support. Lower-back-support cushions are available at many office supply stores.

❖ Sit with your back straight so that your knees, hips, and elbows form approximately 90-degree angles when you work. Avoid slumping forward or leaning back too far.

Lighting

Proper lighting can improve the visibility of the display and reduce eyestrain.

❖ Position the display panel or external monitor so that sunlight or bright indoor lighting does not reflect off the screen. Use tinted windows or shades to reduce glare.

❖ Avoid placing your computer in front of a bright light that could shine directly in your eyes.

❖ If possible, use soft, indirect lighting in your computer work area.

CAUTION Your LCD display has a brightness approaching that of a TV device. We recommend that you adjust the brightness of your LCD to a comfortable level to prevent possible strain on your eyes.

Arms and wrists

❖ Avoid bending, arching or twisting your wrists. Keep them in a relaxed, neutral position while typing.

❖ Exercise your hands, wrists and arms to improve circulation.

Work habits

The key to avoiding discomfort or injury from strain is to vary your activities. If possible, schedule a variety of tasks into your working day. Finding ways to break up the routine can reduce stress and improve your efficiency.

❖ Take frequent breaks to change position, stretch your muscles and relieve your eyes. A break of two or three minutes every half hour is more effective than a long break after several hours.

❖ Avoid performing repetitive activities for long periods. Intersperse such activities with other tasks.

❖ Focusing your eyes on your computer screen for long periods can cause eyestrain. Look away from the computer frequently and focus your eyes on a distant object for at least thirty seconds.

A CAUTION Your LCD display has a brightness approaching that of a TV device. We recommend that you adjust the brightness of your LCD to a comfortable level to prevent possible strain on your eyes.

Other precautions

❖ Avoid prolonged physical contact with the underside of the computer.

If the computer is used for long periods, its case can become very warm. While the temperature may not feel too hot to the

touch, if you maintain physical contact with the computer for a long time (if you rest the computer on your lap, for example), your skin might suffer low-heat injury.

A CAUTION Some PC Cards can become hot with prolonged use. If two cards are installed, both can become hot even if only one is being used. Overheating of a PC Card can result in errors or instability in its operation.

Be careful when you remove a PC Card that has been used for a long period.

CAUTION Never apply heavy pressure to the computer or subject it to sharp impacts. Excessive pressure or impact can damage computer components or otherwise cause your computer to malfunction.

❖ Avoid spilling liquids on the computer's keyboard.

   If you do spill a liquid that gets into the keyboard, turn off the computer immediately. Leave the computer turned off overnight to give it time to dry out before you use it again.

❖ Never turn off the computer if a drive light indicates a drive is active.

   Powering off the computer while it is reading from or writing to a disk may damage the disk, the drive or both.

❖ Keep the computer and diskettes away from objects that generate strong magnetic fields, such as large stereo speakers.

   Information on diskettes is stored magnetically. Getting a magnet too close to a diskette can erase important files.

❖ Scan all new files for viruses.

This precaution is especially important for files you receive via diskette or email, or download from the Internet.

Important information on your computer's cooling fan

Your computer may have a CPU cooling fan that cools the CPU by drawing outside air into the computer. The cooling fan may be located on the bottom of the computer.

CAUTION To prevent possible overheating of the CPU, make sure the air intake on the cooling fan is not blocked. The fan draws in air by creating a vacuum. If the fan is blocked, it could cause the CPU to run at a lower performance level or cause the computer to shut down. Loose items such as notebook and tissue paper, plastic wrappers, or other similar materials can block the air intake, preventing air from reaching the CPU. Do not use the computer on surfaces with objects that can be drawn in by the cooling fan.

NOTE The cooling fan location will vary depending on the computer.

Setting up your computer

TECHNICAL NOTE: You must complete all setup steps up to "Setting up your software" on page 49 before adding external or internal components to your computer. These components include, but are not limited to, a mouse, keyboard, printer, memory, and PC cards.

Your computer contains a rechargeable battery that needs to be charged before you can use it.

To use external power or to charge the battery, you must attach the AC adapter. See "Connecting to a power source" on page 51.

Setting up your software

NOTE	The names of windows displayed, and the order in which windows appear, may vary according to your software setup choices.

NOTE	The first time you turn on your computer, a keyboard, which is used with the tablet pen, appears on your screen. Use the click and drag method to move the keyboard to another part of the screen, if desired. To drag the screen to another location, click on the keyboard's Title Bar, and then hold it while you drag it to its new location.

The first time you turn on your computer, the Setup Wizard guides you through steps to set up your software.

1   From the welcome screen, click Next to enter the Setup Wizard.

2   Confirm acceptance of Microsoft's End User License Agreement and click Next.

3   Enter your name and the name of your company or organization and click Next.

     The computer will pause for a moment while checking for an internet connection.

     A window will display the message "An Internet connection could not be chosen."

4   Enter the information about your computer.

NOTE   If you are connecting your computer to a network, consult your system administrator before you choose your computer name and network settings.

5 Set the correct date, time and time zone for your computer and click Next.

Your computer restarts automatically.

Registering your computer with Toshiba

Product registration is strongly recommended, and allows Toshiba to send the Customer periodic updates, announcements, and special offers applicable to the product. Product registration can be completed during the initial start up process of your computer. If you opt not to register at that time, you can either double-click the icon on your desktop or go to the Toshiba Web site at www.register.toshiba.com. Customer failure to complete Product Registration will not diminish Customer rights under this limited Warranty.

NOTE   To register online, your computer's modem must be connected to the internet or a voice-grade telephone line.

Adding external devices

Before starting to use your computer, you may also want to:

❖ Add more memory (see "Installing a memory module" on page 60)

❖ Connect a mouse (see "Connecting an external USB keyboard" on page 65)

❖ Connect a full-size keyboard (see "Connecting an external USB keyboard" on page 65)

- ❖ Connect an external monitor (see "Using external display devices" on page 70)

- ❖ Connect a local printer (see "Connecting a printer" on page 66)

- ❖ Install PC Cards (see "Using PC Cards" on page 151)

Connecting to a power source

Your computer requires power to operate. Use the power cord/cable and AC adapter cord to connect the computer to a live electrical outlet, or to charge the computer's battery.
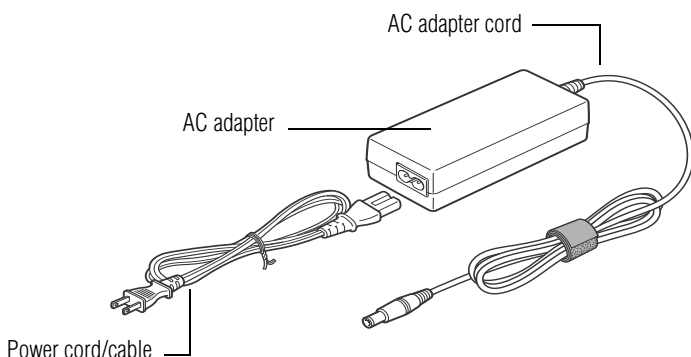
Sample power cord/cable and AC adapter cord

| ⚠ WARNING | Hold the power cord/cable by its plug when you connect/disconnect it. Do NOT pull the cord/cable itself. Doing so may damage the power cord/cable and result in a short circuit or electric shock. |

A WARNING When you connect the AC adapter to the computer, always follow the steps in the exact order as described in the User's Guide. Connecting the power cord/cable to a live electrical outlet should be the last step; otherwise, the adapter DC output plug could hold an electrical charge and cause an electrical shock or minor bodily injury when touched. As a general safety precaution, avoid touching any metal parts.

A CAUTION Use only the AC adapter supplied with your computer or an equivalent adapter that is compatible. Use of any incompatible adapter could damage your computer. Toshiba assumes no liability for any damage caused by use of an incompatible adapter.

To connect AC power to the computer:

1 Connect the power cord/cable to the AC adapter.
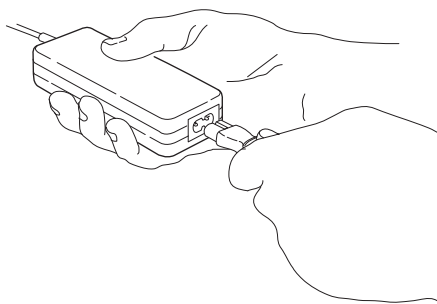
Sample connecting the power cord/cable to the AC adapter

A WARNING Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. ***Wash hands after handling.***

2 Plug the AC adapter cord into the DC-IN on the back of the computer.
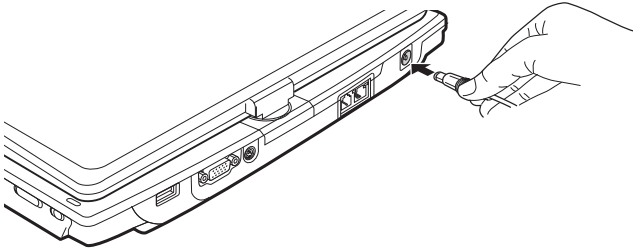
Sample connecting the AC adapter cord to the computer

3 Connect the power cord/cable to a live electrical outlet.

The AC power indicator glows when the computer is connected to an external power source.

The battery light:

❖ Glows amber while the battery is being charged.

❖ Glows green when the battery is fully charged.

❖ Is off (no illumination) when the computer is not connected to an external power source. For information on determining battery power, see "Monitoring battery power" on page 115.

⚠ WARNING Damaged power cords/cables can cause fire or electric shock. Never modify, forcibly bend, place heavy objects on top of, or apply heat to the power cord/cable.

If the power cord/cable becomes damaged or the plug overheats, discontinue use. There is a risk of electric shock.

Never remove the power plug from the outlet with wet hands. Doing so may cause an electric shock.

Charging the main battery

Your computer came with its battery already installed. Before using the battery to power the computer, you must first charge it.

To charge the battery, leave the computer plugged in until the battery light glows green. This indicates that the battery is completely charged and ready to power the computer.

For more information about installing or removing the battery, see "Changing the battery" on page 121.

Using the computer for the first time

Opening the display panel

1   Press and hold the display release button.

2   Lift the display panel.
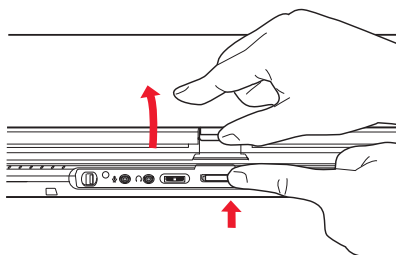
Sample opening the display panel

CAUTION	To avoid damaging the display panel, do not force it beyond the point where it moves easily, and never lift the computer by the display panel.

To learn how to rotate the display panel or use your computer in tablet mode. see "Using your computer in tablet mode" on page 68.

NOTE   While in Primary Landscape mode, you can use
        FN + Spacebar to change the screen resolution from 1024 x
        768 to 800 x 600 (repeated use will recycle the resolutions).
        For more information, see "Display modes" on page 232.

Small bright dots may appear on your TFT display when you turn on your computer. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology.

NOTE   Over a period of time, and depending on the usage of the
        computer, the brightness of the LCD screen will deteriorate.
        This is an intrinsic characteristic of LCD technology.

        The screen may be dimmer when the computer is operated on
        battery power. You may not be able to increase the brightness
        of the screen until you plug the computer into AC power again.

Your computer's features and specifications

Certain notebook chassis are designed to accommodate all possible configurations for an entire product Series. Your selected model may not have all the features and specifications corresponding to all of the icons or switches shown on the notebook chassis, unless you have selected all those features.

Below are examples of some of the many possible icons that
may come with your computer:

Sample system icons

This information applies to all the features and icons
described in this guide.

Turning on the power

To turn on the computer:

1 Make sure any external devices (such as the AC adapter,
if you plan to use AC power rather than battery power)
are properly connected and ready.

CAUTION The first time you turn on the computer you should not have
any accessories or third-party devices attached.

2 If an optional external diskette drive is connected to your
computer, verify that the drive is empty.

3 Slide the power lock button down, and then slide the
power button to the right and hold it until the on/off light
on the system indicator panel glows green—about one
second.

CAUTION Never turn off the computer while any of the drives are in use.
Doing so may damage the media in use and result in loss of
data.

4 The preinstalled operating system loads automatically.

CAUTION   When you turn on the computer for the first time, do not turn off the power again until the operating system has loaded completely.

Using the TouchPad™

The TouchPad, the small, smooth square cutout located in front of the keyboard, is sensitive to touch and enables you to move the cursor with the stroke of a finger. Simply move your finger on the TouchPad in the direction you would like to move the cursor:

❖ To move the cursor to the top of the page, push your finger forward on the TouchPad.

❖ To move the cursor to the bottom of the page, drag your finger toward yourself.

❖ To move the cursor to the right side of the page, slide your finger across the TouchPad from left to right.

❖ To move it to the left side, slide your finger from right to left.

NOTE   Because the TouchPad is much smaller than the display screen, moving your cursor across the screen often means having to move your finger several times across the TouchPad in the desired direction.

Once you have positioned your cursor, you can double-tap the TouchPad or click the buttons to open a program or file, or to get information about an icon.

Primary and secondary control buttons

When you want to click or choose an item, use the TouchPad to move the pointer/cursor to the item. Once the pointer/cursor is positioned, you can double-tap the TouchPad or click the buttons to open a program or file or to get information about an icon.

The control buttons are adjacent to the TouchPad and are used like the buttons on a mouse. The primary control button is the left one and corresponds to the left mouse button. To double-tap, press the primary button twice in rapid succession.

The function of the secondary button depends on the program you are using. It usually corresponds to the right mouse button. Check your program's documentation to find whether it uses the secondary mouse button.

Disabling or enabling the TouchPad

The TouchPad is enabled by default. To change the current enable/disable TouchPad setting:

1   Click **Start**, **Control Panel**.

    The Control Panel window appears.

2   Click **Printers and Other Hardware**.

3   Click **Mouse Properties**.

    The Mouse Properties window appears.

4   Click the **TouchPAD ON/OFF** tab.

The TouchPAD ON/OFF tab appears.
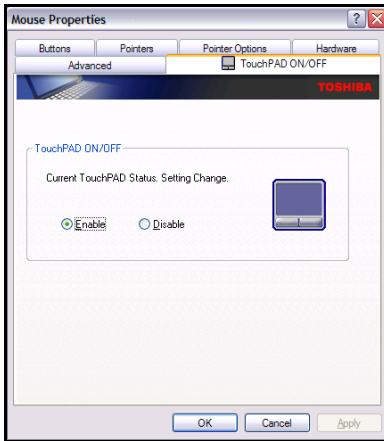
Sample Mouse Properties window, TouchPAD ON/OFF tab

5   Select **Disable** or **Enable**, whichever is appropriate.

6   Click **Apply**.

7   Click **OK**.

The Mouse Properties window closes.

8   Close the Printers and Other Hardware window.

9   Close the Control Panel window.

You can also use a hot key to disable or enable the TouchPad.
See, "Disabling or enabling the TouchPad" on page 233.

Installing a memory module

HINT: To purchase additional memory modules, see the accessories information packaged with your system or visit accessories.toshiba.com.

CAUTION Before you install or remove a memory module, turn off the computer using the Start menu. If you install or remove a memory module while the computer is in Stand by or Hibernation mode, data will be lost.

CAUTION Do not install or remove a memory module while any internal or external drive power is on.

Your computer comes with enough memory to run most of today's popular applications. You may want to increase the computer's memory if you use complex software or process large amounts of data.

Additional memory comes in various capacities (to stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at accessories.toshiba.com).

Additional memory modules can be installed in the memory expansion slots on the base of the computer.

CAUTION If you use the computer for a long time, the memory modules become hot. If this happens, let the memory modules cool to room temperature before you replace them.

You need a standard Phillips no.1 screwdriver for this procedure.

CAUTION To avoid damaging the computer's screws, use a standard Phillips no. 1 screwdriver that is in good condition.

If the computer is on, begin at step 1; otherwise, skip to step 3.

1 If the computer is on, click **Start**, **Turn Off Computer**.

The Turn off computer window appears.

2 Click **Turn Off**.

The operating system turns off the computer.

3 Unplug the computer.

4 Close the display panel and remove any cables you may have connected to the computer, including the AC adapter cord/cable.

CAUTION Before you turn the computer over, make sure that the computer display is properly closed and is **not** in tablet mode. Setting the computer down on the display may cause damage to the screen.

5 Turn the computer upside down, remove the battery, and locate the expansion memory cover to the memory slot.
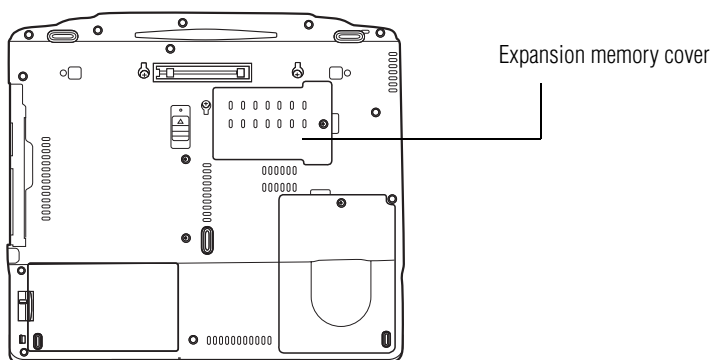
Sample base of the computer

6 Using a standard Phillips no. 1 screwdriver, unscrew the screw that secures the memory slot cover, then remove the memory slot cover.
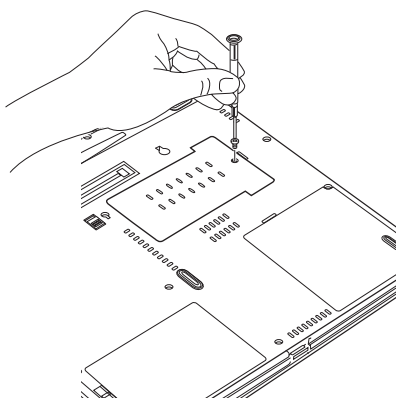
Sample removing the memory slot cover screws

7 Place the screw and the cover in a safe place so that you can retrieve them later.

CAUTION Static electricity can damage the memory module. Before you handle the module, touch a grounded metal surface to discharge any static electricity you may have built up.

To avoid damaging the memory module, be careful not to touch its gold connector bar (on the side you insert into the computer).

8 Remove the new memory module from its antistatic packaging.

9 Insert the memory module in the slot and gently press it down into place so that it is seated properly.

The clips on either side of the module will click to secure the module.
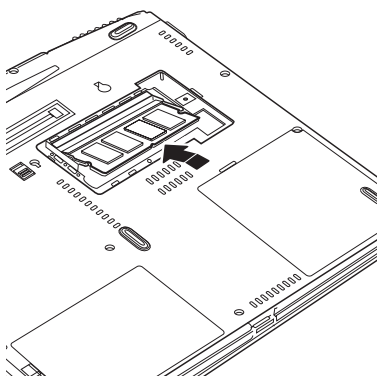
Sample inserting the memory module

CAUTION Avoid touching the connectors on the memory module or on the computer. Grease or dust on the connectors may cause memory access problems.

10 Replace the memory slot cover.

11 Replace the screw and tighten it.

12 Turn the computer over and reconnect any cables you removed.

Removing a memory module

If you need to remove a memory module:

1 Complete steps 1–7 in "Installing a memory module" on page 60 to shut down the computer and expose the memory module(s).

CAUTION Do not try to remove a memory module with the computer turned on. You can damage the computer and the device.

Do not remove the memory module while the computer is in Stand By mode. The computer could hang up the next time you turn it on and data in memory will be lost. In either of the above cases, the Stand By configuration will not be saved.

The following message appears when you turn on the power:

Warning: Resume Failure
Press Any Key To Continue

If the computer hangs up when you turn it on, perform the following: Press the power button and hold it down for at least ten seconds, then turn the power on again.

2 Pull the clips away from the memory module.

The memory module pops partially out of the slot.
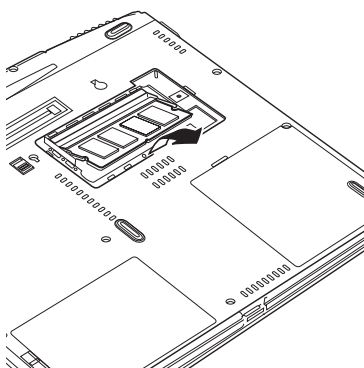
Sample removing the memory module

3 Carefully remove the module from the slot.

4 Replace the memory slot cover and the screw.

5 Restart the computer.

TECHNICAL NOTE: You must have at least one memory module installed for the computer to work.

Connecting an external USB keyboard

You can attach an external standard keyboard to a USB port on your computer, provided the keyboard is USB-compatible.

Connecting an external USB mouse

You may want to use a mouse instead of the TouchPad, the computer's built-in pointing device. You can attach an external mouse to one of the computer's USB ports, provided the mouse is USB-compatible.

To connect the mouse, or any other USB device to your computer, plug its cable into one of the USB ports. You can connect it while the computer is on.
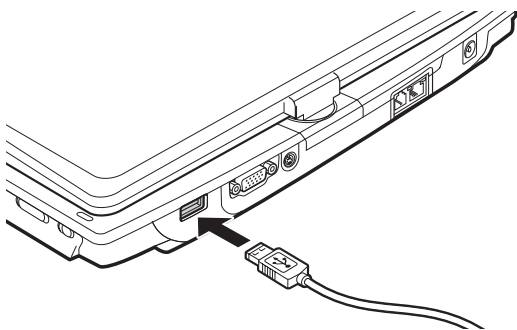
Sample connecting a USB mouse

The operating system automatically detects the mouse. The mouse and TouchPad can be used at the same time.

Connecting a printer

CAUTION Your printer documentation may require you to install the printer software before physically connecting the printer to your computer. If you do not install the software as instructed by the printer manufacturer, the printer may not function correctly.

CAUTION Never connect the printer cable while the computer's power is on. Doing so may damage the printer, the computer, or both.

NOTE Read the documentation that came with your printer. Follow the manufacturer's instructions when connecting a local printer.

If the printer has a USB interface, you can connect it directly to the computer.

You also need a USB cable, which may come with your printer. You can purchase one from a computer or electronics store.

1   Connect the flat end of the USB cable to the USB port.

2   Connect the other end of the USB cable to the printer.

3   Connect the printer's power cord/cable to a power outlet and turn on the printer.

Setting up a printer

If you have a printer, follow these steps to set it up for the first time. You only need to set up the printer once.

1   Click **Start**, **Printers and Faxes**.

The Printers and Faxes window appears.

2   Click **Add a Printer**.

The Add Printer Wizard appears
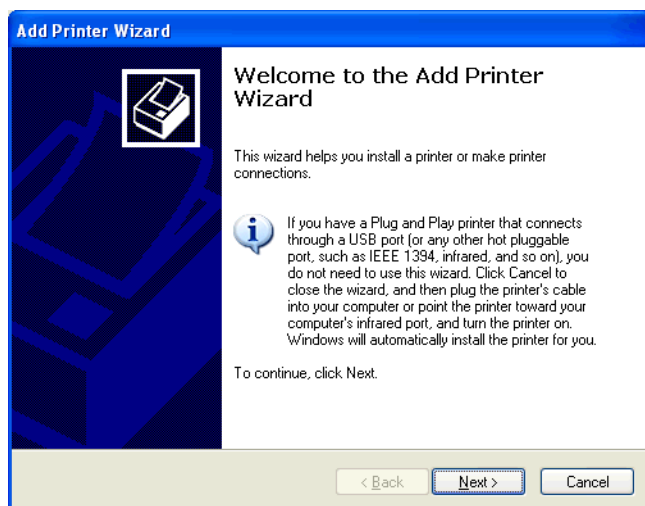
Sample Add Printer Wizard

3 Follow the on-screen instructions to set up your printer.

TECHNICAL NOTE: Some printers require a specific installation process. Refer to your printer installation guide for instructions.

Using your computer in tablet mode

One of your computer's features is a convertible display that allows you to use the screen much as you would a writing tablet.
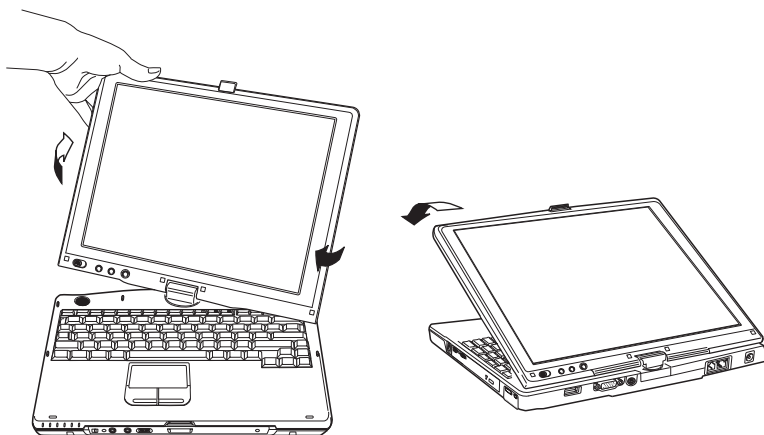
Sample rotating the screen

To use your system in tablet mode, open your computer, carefully rotate the screen clockwise 180 degrees, and fold the screen down on top of the keyboard.

CAUTION When rotating the LCD screen of your computer, be sure to slowly turn the screen in the proper direction. Do not apply excessive force or speed.
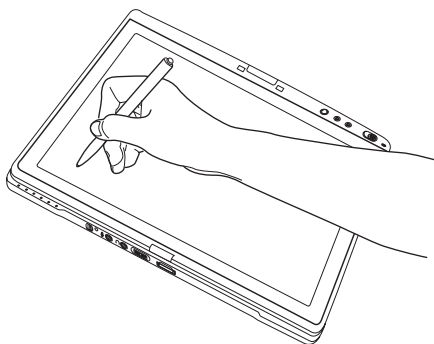
Sample using the computer in tablet mode

To remove the tablet pen press once on the end of the pen to extend it and then pull it out from the right side of the computer.

For more detailed information on using the computer in tablet mode, see "Using tablet mode" on page 147.

NOTE

Included with your computer is the Cross Menu application which allows you to make Hot Key assignments, access other Toshiba utilities, and create your own custom menus. For details on using the Cross Menu, refer to "Cross Menu Utility" on page 177.

Your computer came with applications already installed that are specifically designed to work with the tablet feature of the system. For more information on those applications, see the documentation provided with them.

Using external display devices

Your computer comes with a built-in LCD display, but you can easily attach an external monitor to your computer if you need a larger screen. To do this:

1 Connect the monitor's video cable to the RGB (monitor) port on the back of the computer.

2 Connect the monitor's power cord/cable to a live electrical outlet.

3 Turn on the external monitor.

4 Set the display mode by pressing Fn + F5, or by setting the Display Properties settings. For more information, see "Directing the display output when you turn on the computer" on page 70.

Directing the display output when you turn on the computer

Once you have connected an external display device, you can choose to use the internal display only, the external device only, or both simultaneously.

Using the Display Hot key

The quickest way to change the display output settings is to use the display hot key (Fn + F5):

1 Press Fn and F5 simultaneously.

2 While holding down Fn, press F5 repeatedly until the setting you want takes effect.

   This hot key cycles through the settings in the following order:

   ❖ Built-in display panel only

   ❖ Built-in display panel and external monitor simultaneously

   ❖ External monitor only

3 Release the Fn key.

TECHNICAL NOTE: You can also change these settings using the Display Properties Box.

Set the option for the video controller by clicking Start, then Control Panel and clicking Display. Choose the Settings tab, click the Advanced button, select Display Device, select the applicable Monitor type, click Apply or OK.

Using the Cross-Functional button

The Cross-Functional button is located on the front of the display and the external display device can be selected by pressing and holding the Cross-Functional button for two seconds until the external display screen displays. For more information, see "Cross Menu Utility" on page 177.

Cross-Functional button
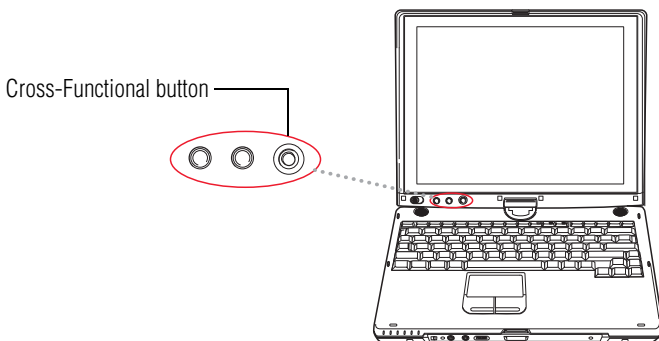
Sample location of the Cross-Functional button

NOTE   While in Primary Landscape mode, you can use FN + Spacebar to change the screen resolution from 1024 x 768 to 800 x 600 (repeated use will recycle the resolutions). For more information, see "Display modes" on page 232.

Adjusting the quality of the external display

To obtain the best picture quality from your external display device, you may need to adjust the video settings. See the documentation supplied with the device for additional configuration steps.

TECHNICAL NOTE: In order to use the simultaneous mode, you must set the resolution of the internal display panel to match the resolution of the external display device. The external display device must support a resolution of 640 X 480 or higher.

If you have your internal display set to horizontal landscape and then rotate the internal display to a portrait style, images will not display properly on an external display or other external device (for example, a projector) unless you change the internal device's setting to primary landscape.

When the display is rotated, the display orientation on the external display will also rotate.

Display limitations

Keep in mind that the quality of the display will be limited to the capabilities of the external video device.

❖ If the external video device, such as an SVGA monitor, is capable of displaying at a maximum resolution of 640 x 480 and your system is set for a higher resolution, only part of the desktop will appear on the screen. You can view the "lost" area by scrolling to it.

❖ If you use the display hot key (Fn + F5) to change the display output with the **LCD Display Stretch** option enabled and the Display area (resolution) set to 640 x 480 or 800 x 600, the image on the internal display panel may appear stretched.

TECHNICAL NOTE: You can also use the Cross-Functional button/Cross Menu utility to toggle between display resolutions. Press and hold the Cross-Functional button for 3 seconds, and then move over to the display icon. Press the Cross-Functional button to make your selection.

You cannot rotate the display to any of the portrait modes if the resolution is set to 800 x 600. You can change from primary landscape to secondary landscape mode or visa versa using the Cross Menu program.

Turning off the computer

It is a good idea to power off your computer when you are not using it for a while.

If you are using the computer for the first time, leave the computer plugged into a power source (even though the computer is off) to fully charge the battery. When the battery light glows green, the battery is fully charged.

Guidelines for powering off the computer:

❖ If you have work in progress and you are not connected to a network, use the Hibernate command to save your system settings to the hard disk so that when you turn on the computer again, you automatically return to where you left off.

❖ To leave the computer off for a longer period, power down the computer. The Windows® XP Tablet PC Edition operating system uses the Shut down command to power down the computer if you are connected to a Windows® network server (domain server) or the Turn Off command if you are not connected.

CAUTION Never turn off the computer while any drive is in use. Doing so may damage the media in use and result in loss of data. For more information, see "Powering down the computer" on page 97.

For more information, see "Powering down the computer" on page 97.

Closing the display panel

When you are finished using the computer, power off and close the display panel to keep dust and dirt out of the computer.

If you close the display panel while the computer is still on, one of these actions will occur:

❖ If you have the audible warning set, the computer beeps to notify you that it is still on. See "Setting battery alarms" on page 119.

❖ If you have an action feature set, the computer performs that action (Nothing, Stand By, Hibernate). For more information, see "Power Management" on page 166.

Different ways to turn the computer on and off

Pressing the power button is not the only way to turn the computer on and off.

Alternatives include:

❖ Using Hot Key combinations

❖ Opening and closing the display panel

❖ Pressing the Windows Security button on the front of the display (the button on the far left)

For more information, see "Using Hibernation mode" on page 103 and "Using Stand By mode" on page 106.

Caring for your computer

To charge the main battery, plug the computer into a live wall outlet. It takes several hours to charge the battery with the computer off. It takes much longer to charge the battery while the computer is on. For more information on battery use, see "Running the computer on battery power" on page 111.

CAUTION Once the battery is charged for the first time, avoid leaving the computer plugged in and turned off for more than a few hours at a time. Continuing to charge a fully charged battery can damage the battery.

TECHNICAL NOTE: When your computer is using all of the power provided by the AC Adapter to run applications, features, and devices, the recharging of the battery cannot occur. Your computer's Power Saver utility can be used to select a power level setting that reduces the power required for system operation and will allow the battery to recharge.

NOTE Battery life and charge time may vary depending on the applications, power management settings, and features used.

Cleaning the computer

CAUTION Keep liquid, including cleaning fluid, out of the computer's keyboard, speaker grille and other openings. Never spray cleaner directly onto the computer. Never use harsh or caustic chemical products to clean the computer.

To keep your computer clean, gently wipe the display panel and exterior case with a lightly dampened cloth. Ask your network administrator for suggestions for appropriate cleaning products.

Moving the computer

Before moving your computer, even across the room, make sure all disk activity has ended (the drive-in-use light stops glowing) and all external peripheral cables are disconnected.

Using a computer lock

You may want to secure your computer to a heavy object such as your desk. The easiest way to do this is to purchase an optional PORT-Noteworthy computer lock cable.

Sample PORT-Noteworthy computer lock cable

To secure the computer:

1 Loop the cable through or around some part of a heavy object.

Make sure there is no way for a potential thief to slip the cable off the object.

2   Pass the locking end through the loop.

3   Insert the cable's locking end into the security lock slot on the left side of your computer, then engage the locking device.
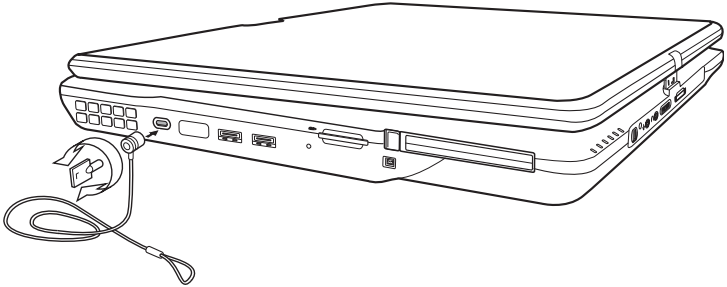
Sample locking the computer

The computer is now securely locked.

Chapter 2

Learning the Basics

This chapter lists computing tips and provides important information about the system's basic features.

Computing tips

❖ Save your work frequently.

Your work temporarily stays in the computer's memory until you save it to the hard disk. You will lose all unsaved work, if, for example, a system error occurs and you must restart your computer, or your battery runs out of charge while you are working. Your computer can be configured to warn you when the battery is running low. See "Setting battery alarms" on page 119.

HINT: Some programs have an automatic save feature which you can turn on. This feature saves your file to the hard disk at preset intervals. See your software documentation for details.

❖ Back up your files to discs (or other removable storage media) on a regular basis. Label the backup copies clearly and store them in a safe place.

   If your hard disk suddenly fails, you may lose all the data on it unless you have a separate backup copy.

❖ Use Error-checking and Disk Defragmenter regularly to conserve disk space and improve performance. Consult your operating system documentation for more information on these and other utilities.

❖ Scan all new files for viruses. This precaution is especially important for files you receive via diskette, email, or download from the Internet.

❖ Take frequent breaks to avoid repetitive-motion injuries and eyestrain.

❖ Do not turn off the computer if a drive indicator light indicates a drive is active.

   Turning off the computer while it is reading from or writing to a disk may damage the disk, the drive, or both.

❖ Before turning off the computer, use the Turn off computer command or Stand By command. See to learn more about Stand By.

CAUTION The operating system records information, such as your desktop setup, during its shut down procedure. If you do not let the operating system shut down normally, details such as new icon positions may be lost.

Using the keyboard

Your computer's keyboard contains character keys, control keys, function keys, and special Windows® keys, providing all the functionality of a full-size keyboard.
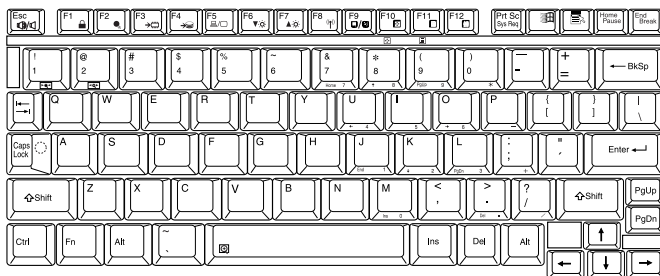
Sample keyboard

Character keys

Typing with the character keys is very much like typing on a typewriter, except that:

❖ The spacebar creates a space character instead of just passing over an area of the page.

❖ The lowercase letter l (el) and the numeral 1 are not interchangeable.

❖ The uppercase letter O and the numeral 0 are not interchangeable.

Making your keyboard emulate a full-size keyboard

Although your computer's keyboard layout is compatible with a standard full-size keyboard, it has fewer keys.

A standard full-size keyboard has two Enter, Ctrl, and Alt keys, editing keys, cursor positioning keys, and a numeric keypad. Pressing the Fn key simultaneously in combination with one

of the specially marked keys on your computer's built-in keyboard allows you to emulate a full-size keyboard.

NOTE

The emulation Fn key and the Wake up on Keyboard while in Stand By are only functional when using the internal keyboard; they are not supported when using a USB keyboard.

Your computer's keyboard has only one Enter and one Ctrl key. Most of the time this does not matter. However, some programs assign separate functions to the right and left Ctrl and Alt keys, or to the regular and numeric pad Enter keys on the full-sized keyboard. Using the Fn key you can simulate these separate keys, as follows:

❖ Press Fn and Ctrl simultaneously to simulate the Ctrl key on the right side of the enhanced keyboard.

❖ Press Fn and Enter simultaneously to simulate the Enter key on the numeric pad of the enhanced keyboard.

Ctrl, Fn, and Alt keys
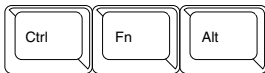
Sample Ctrl, Fn, and Alt keys

The Ctrl, Fn, and Alt keys do different things depending on the program you are using. For more information, see your program documentation.

Function keys

The function keys (not to be confused with the Fn key) are the 12 keys at the top of the keyboard.
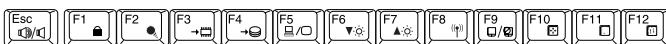
Sample Function keys

F1 through F12 are called function keys because they execute programmed functions when pressed. Used in combination with the Fn key, function keys marked with icons execute specific functions on the computer. For more information, see "Fn-esse" on page 159, or "Hot Keys" on page 228.

Hot keys

When used in combination with the Fn key, function keys marked with icons run programmed functions specific to your computer. For more information, see "Hot Keys" on page 228.

Windows® special keys

Start key
Application key

Sample Windows® special keys

Your computer's keyboard has two keys, located at the top-right of the keyboard, that have special functions in the operating system:

❖ **Start key**—Opens the Start menu

❖ **Application key**—Has the same function as the secondary mouse (or TouchPad) button

Overlay keys

The keys with numbers and symbols on the front of them form the numeric and cursor overlay. This overlay lets you enter numeric data or control the cursor as you would using the 10-key keypad on a desktop computer's keyboard.
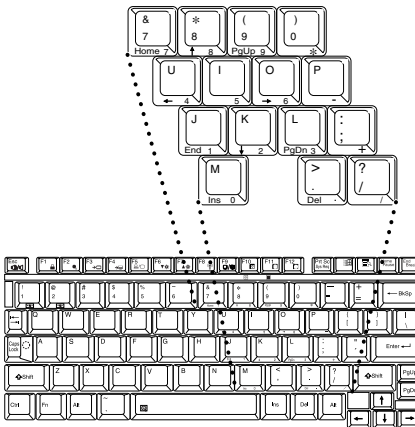
Sample numeric and cursor control overlay

Using the overlay to type numeric data

The keys with the numbers on their right front are the numeric overlay keys.

To turn the numeric overlay on, press Fn and F11 simultaneously. The numeric mode light glows when the numeric overlay is on.

Once the numeric overlay is turned on:

To	*Procedure*
Type lowercase letters	Press and hold down Fn while you type the letters
Type uppercase letters	Press Fn and Shift simultaneously while you type the letters
Use the cursor control keys	Press and hold down Shift while you use the overlay keys, then release Shift to return to the numeric overlay

To turn off the numeric overlay, hold down the Fn key and press F11 again. The numeric mode light on the keyboard indicator panel goes out.

Using the cursor control overlay

To turn on the cursor control overlay, press Fn and F10 simultaneously. The cursor control mode light on the keyboard indicator panel glows when the cursor control overlay is on.

Once the cursor control overlay is on:

To	*Procedure*
Type lowercase letters	Press and hold down Fn while you type the letters
Type uppercase letters	Press Fn and Shift simultaneously while you type the letters
Use the numeric keys	Press and hold down Shift while you use the overlay keys, then release Shift to return to the cursor control overlay

To turn off the cursor control overlay, hold down the Fn key and press F10 again. The cursor control mode light on the keyboard indicator panel goes out.

Starting a program

The easiest way to start a program is to double-click the name of the file that contains the information you want to work on. To find the file, use My Computer or Windows® Explorer.

If you prefer to open the program first, you have the following options:

❖ Double-click the icon for the program on your desktop

❖ Use the Start menu

❖ Use Windows® Explorer to locate the program file

❖ Use the Run dialog box

The next three sections explain how to start a program from the Start menu, Explorer, and the Run dialog box.

Starting a program from the Start menu

When you install a program, the operating system usually puts an icon in the All Programs menu. To start a program that has an icon in the All Programs menu, follow these steps which use the Windows® WordPad program as an example:

1 Click **Start**, then point to **All Programs**.

The Windows® XP operating system displays the All Programs menu, which lists programs and program groups. If your program is listed go to step 3, otherwise, continue with step 2.

2 Point to the program group, in this example, **Accessories**.

The Accessories menu displays.

3 Click the program, in this example, **WordPad**.

WordPad opens.

To close the program, click the **Close** button in the upper-right corner of the program's window.

Starting a program from Windows® Explorer

If a program is not listed in the Programs menu, you can start it from Windows® Explorer. Windows® Explorer gives you a view of your computer's contents as a hierarchy or "tree." You can easily see the content of each drive and folder on your computer. To use this method, you should know the file name and location of the program's executable file (this file ends with .exe).

This example opens WordPad using its file name, *wordpad.exe*.

1 Click **Start**, then point to **All Programs**.

2 Click **Accessories**.

3 Click **Windows Explorer**.

4 In the left pane of the window, click **My Computer** to expand the window.

5 In the left pane of the window, click **Local Disk (C:)**.

6 In the left pane of the window, click the folder containing the program, in this case **Program Files**.

Windows® Explorer shows the contents of the Program Files folder on the right side of the window. The left side of the window shows all the folders contained within the Program Files folder.

7 In the left pane of the window, click **Windows NT**.

8 In the left pane of the window, click **Accessories**.

Windows® Explorer shows the contents of the **Accessories** folder on the right side of the window.

9 In the right part of the window, double-click **WordPad**.

WordPad opens.

To close the program, click the **Close** button in the upper-right corner of the program's window.

Starting a program from the Run dialog box

This example uses the Run command to start WordPad:

1 Click **Start**, then click **Run**.

The Run dialog box appears.
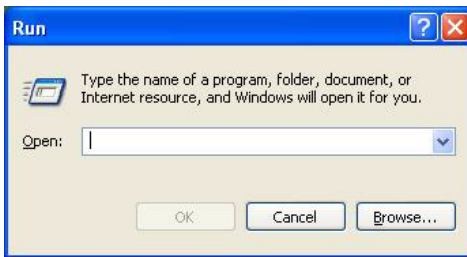
Sample Run dialog box

2 In the Run dialog box:

❖ For a program in the Windows® NT folder, type just the program name. Otherwise, if you know the program's location, type the full file path. Then click **OK**.

❖ If you do not know the program's location, you can search for it by clicking **Start**, and then **Search**. When the Search screen displays, follow the displayed instructions.

HINT: To run the same program again, click the arrow to the right of the text box and select the command line from the drop-down list.

Saving your work

Before you turn off the computer, save your work to the hard disk drive or a diskette.

CAUTION Always save your data even when you are using the Stand By command. If your battery fully discharges, your information will be lost. Your computer can be configured to warn you when the battery is running low, see "Using battery alarms" on page 119.

Many programs offer a feature that saves documents at regular intervals, such as every 15 minutes. Check your programs' documentation to see whether they have an automatic save feature.

To save:

❖ A file you are updating, open the program's **File** menu and click **Save**.

❖ A new file, choose **Save As** from the **File** menu, type a name for the file, and click **OK**.

HINT: To make another copy of the file you are currently working with, choose **Save As** from the **File** menu and give the new file a different name.

Printing your work

Verify that the Windows® XP Tablet PC Edition operating system is set up for your printer as described in .

TECHNICAL NOTE: You only need to set up the printer the first time you connect it. If you use more than one printer or are changing printers, you will need to set up the operating system to run with the additional printer(s).

To print a file:

1 If your printer is not on, turn it on now.

2 In the **File** menu of your program, click **Print**.

The program displays a Print dialog box.

3 Click **OK** to print.

Using the DVD-ROM or multi-function drive

Optical storage has become the preferred medium for software, music, and video. Digital versatile discs (DVDs) provide a significant increase in data storage and support features that are not available on any other video platform. These features include wide-screen movies, multiple language tracks, digital surround sound, multiple camera angles, and interactive menus.

For these reasons, your computer may come with a DVD-ROM drive or multi-function drive.

TECHNICAL NOTE: Your DVD-ROM or multi-function drive is set to play region 1 (North America) DVD-ROMs. If you play a DVD disc from another region, the drive will automatically change to play in the format of the other region. The drive will allow you to change regions four times. On the fourth change, the region will be "locked in." That is, the drive will only play DVDs from the last region. Note that changing from region 1 to region 2 and back to region 1 is counted as two changes.

NOTE   For optimum CD and DVD performance, it is recommended that you play CDs and DVDs while running the computer on AC power.

You use CD-ROMs and DVD-ROMs to load and run software, and to access reference material such as catalogs, as well as listen to music. A special feature allows you to play audio CDs even when the computer is turned off.

Drive components and control buttons

The DVD-ROM or multi-function drive is located on the right side of the computer.

Your DVD-ROM or multi-function drive may look like this:

Eject button
Manual eject hole
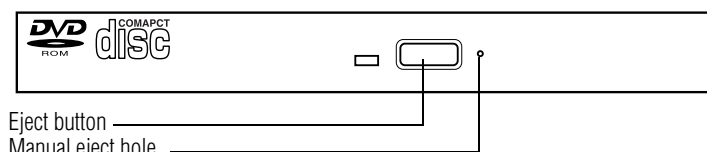
Sample DVD-ROM or multi-function drive shown

Drive in-use indicator light—Indicates when the drive is in use.

Eject button—Press to release the disc tray.

CAUTION Never press the eject button or turn off the computer while the drive-in-use indicator light is glowing. Doing so could damage the disc or the drive.

Manual eject hole—Use if you need to release the disc tray when the power is off. Use a straightened paper clip or other narrow object to press the manual eject button located inside the hole.

CAUTION Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer and damage it. Instead, use a slim object such as a straightened paper clip.

Inserting discs (CD or DVD)

To insert a disc into the drive:

1 Make sure the computer is turned on.

2 Make sure the drive-in-use indicator light is off.

3 Press the drive's eject button.

The disc tray slides partially out of the drive (about 1 inch).

HINT: The drive will not open if the computer's power is off.

4 Grasp the disc tray and pull it fully open.
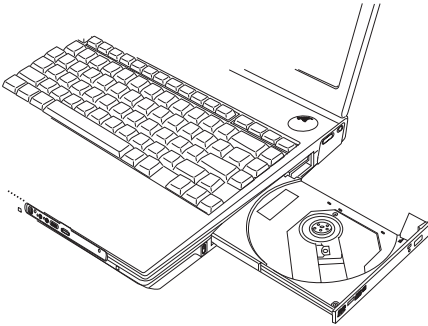
Sample of drive tray fully extended

5 Hold the disc by its edges and check that it is free of dust.

If the disc is dusty, clean it as described in "Caring for CDs and DVDs" on page 96.

CAUTION Handle DVDs and CDs carefully, making contact only with the center hole and edge. Never touch the surface of the disc. Never stack discs. If you incorrectly handle the discs, you could lose data.

6 Place the disc carefully in the disc tray, label side up.
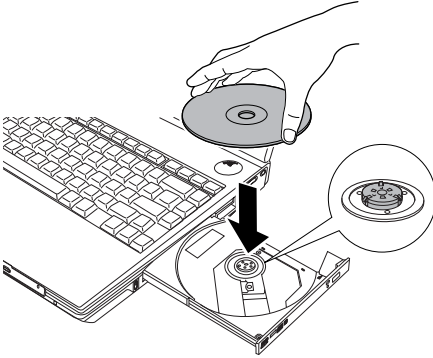
Sample positioning the disc in the drive

7 Gently press the disc onto the center spindle until you feel it click into place.

CAUTION Be careful not to touch the drive's lens (located underneath the drive's spindle) or the area around it. Doing so could cause the drive to malfunction.

8 Make sure the disc is completely on the spindle and is lying flat on the tray.

CAUTION If you insert the disc incorrectly, it may jam the drive. If this happens, contact your network administrator for assistance.

9 Push the disc tray in by pressing gently on the center of the tray until it clicks into place.

You are ready to use the disc.

Playing an audio CD

CAUTION	Before playing an audio CD, turn the volume down. Playing the compact disc at maximum volume could damage your ears. To turn the volume down, use the Volume Control switch or access the Volume Control program (click Start, All Programs, Accessories, Entertainment, Volume Control).

Insert an audio CD and close the disc tray.

The computer automatically detects a disc in the drive and opens the Audio CD window. To play an audio CD select the Play Audio CD using Windows Media® Player option and click OK.
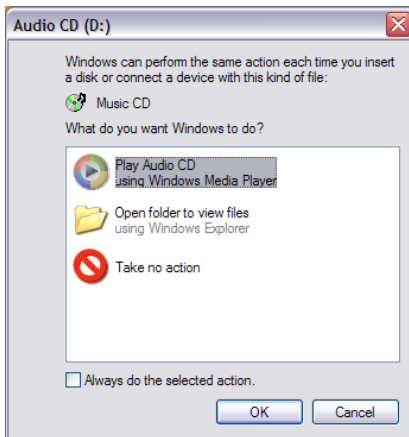
Sample Audio CD window

The Windows Media Player window appears.
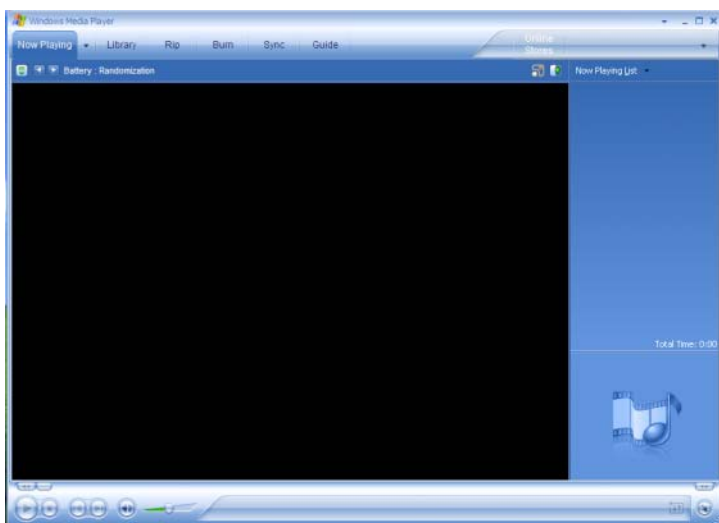
Sample Windows Media Player screen

The Windows Media Player control panel works much like an ordinary compact disc player:

❖ To play the CD or to pause, click the **Play/Pause** button on the CD Player control panel.

❖ To stop the CD, click the **Stop** button.

Playing CDs using Auto-Run

If you insert a CD into the DVD-ROM/multi-function drive and the Auto-Run feature does not automatically start your disk, try launching the CD manually. To do this, follow these steps:

1 Open the **Start** menu and select **My Computer.**

2 Double-click the DVD-ROM/multi-function drive icon.

The disk drive will run the CD.

If your disk does not run using this method, try using an application that is associated with the media on the disk. For

example, if it is a music CD, open Windows® Media Player and point it to play the CD. For other types of media, use the associated software to open the files on the disk.

Creating a CD

Depending on your computer's configuration, your computer may come with a multi-function drive that allows you to:

❖ Play pre-recorded DVDs

❖ Play pre-recorded CDs

❖ Read and write data (depending on your system configuration) and music files to CD-Recordable (CD-R) and CD-Rewritable (CD-RW) discs; and read DVD±R/RW or DVD RAM discs.

NOTE   Copy protection technology included in certain media may prevent or limit recording or viewing of the media.

Viewing the contents of a CD or DVD

CDs and DVDs contain files just like the hard disk. CDs are often used to install software or store files that require lots of space, such as photographs and large presentation files. You can use Explorer or My Computer to view the contents of any CD or DVD.

Removing a disc with the computer on

CAUTION   Never press the eject button or turn off the computer while the drive-in-use light is glowing. Doing so could damage the disk or the drive.

1   Locate and press the eject button.

The disc tray partially opens.

2 Grasp the disc tray and pull it fully open.

3 Remove the disc from the disc tray and place it in its protective cover.

CAUTION If the disc is spinning when you open the disc tray, wait for the disc to stop before removing it.

4 Close the disc tray by pressing gently on the center of the tray until it clicks, indicating that it is locked.

Removing a disc with the computer off

1 Insert a slender object, such as a straightened paper clip, into the manual eject button access hole.

CAUTION Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer and damage it.

2 Pull the tray fully open, remove the disc, and place it in its protective cover.

3 Close the disc tray by pressing gently on the center of the tray until it clicks, indicating that it is locked.

Caring for CDs and DVDs

❖ Store your discs in their original containers to protect them from scratches and keep them clean.

❖ Never bend a disc or place heavy objects on top of it.

❖ Never apply a label to, or otherwise mar the surface of a disc.

❖ Hold a disc by its outside edge. Fingerprints on the surface can prevent the drive from reading the data properly.

❖ Avoid exposing discs to direct sunlight or extreme heat or cold.

❖ To clean a disc that is dirty, wipe it with a clean, dry cloth. The most efficient method to clean it is to start from the center of the disc and wipe toward the outward edge (not in a circle). If necessary, moisten the cloth with water or a neutral cleaner (not benzine or rubbing alcohol). Let the disc dry completely before inserting it in the drive.

Powering down the computer

When you power down the computer, you have a number of options to choose from:

❖ Turn Off or Shut down, which powers off the computer

❖ Hibernation, which saves the current operating state to the hard disk and powers off the computer

❖ Stand By, which saves the current operating state to memory and enters a low power mode

❖ Restart, which restarts the computer

Each option has its advantages.

TECHNICAL NOTE: Before using any of these options to power down your computer, save your files and make sure the disk activity lights are off.

If you change your mind and decide to continue working after all, wait a few seconds before turning the computer on again.

Turn Off or Shut down command

The Turn Off or Shut down commands power off the computer. The Windows® XP Tablet PC Edition operating system uses Turn Off if you are not connected to a Windows® network server (domain server). It uses Shut down if you are connected to a Windows® network server (domain server).

Factors to consider when choosing Turn Off or Shut down:

❖ No power is used while the computer is turned off. This is the most efficient mode if you will be away from your computer for an extended time.

❖ Restarting from Turn Off or Shut down uses the most time and battery power.

❖ When starting up again, the system does not automatically open the programs and files you were previously using.

Restart command

Restart is the same as Turn Off or Shut down but automatically powers up the computer. Use it when you need to reload the operating system, for example to activate changes to system settings.

Hibernation command

The Hibernation command powers off the computer, but it first saves the current state of the computer to the hard disk. Since Hibernation does not require power to maintain the saved information, the system settings are retained indefinitely. Restoring information from the hard disk takes longer than restoring it from memory. When you start up again, the computer runs a self-test, loads the operating system, and then returns to the state in which you left it.

Factors to consider when choosing Hibernation:

❖ While in Hibernation mode, the computer uses no battery power.

❖ Because the state of the system is held on the hard disk, no data is lost if the battery discharges while the computer is in Hibernation mode.

❖ When starting up again, this choice uses less time and battery power than the Turn Off or Shut down option. But it uses a little more time and battery power to start up than the Stand By option, because information is being retrieved from the hard disk instead of from memory.

❖ On restarting, the computer returns to the state in which you left it, and opens all the programs and files you were using.

Stand By command

The Stand By command puts the computer into a power-saving mode. Stand By stores the current state of the computer in memory so that, when you restart the computer, you can continue working from where you left off.

Factors to consider when choosing Stand By:

❖ While in Stand By mode, the computer uses some battery power. If your computer is left in Stand By mode for an extended period, your computer could lose data.

❖ When starting up again, this choice uses less time and battery power than either Turn Off, Shut down or Hibernation.

❖ On restarting, the computer returns to the state in which you left it, and opens all the programs and files you were using.

CAUTION If you power down using the Stand By command and the battery discharges fully, your information will be lost. Be sure to save your work often.
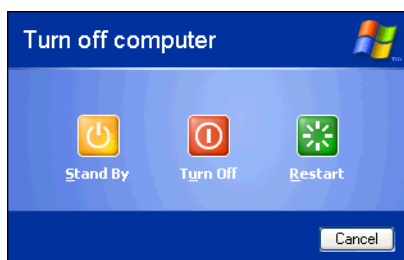
Using Turn Off or Shut down

If you are not connected to a Windows® network server (domain server), power off the computer as follows:

To turn off the computer.

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.

Sample Turn off computer window

2 Click **Turn Off**.

| NOTE | Holding the Shift key while the Turn Off computer Windows dialog box is open, changes the Stand By button to hibernate. For more information about setting up hibernation, refer to "Using Hibernation mode" on page 103. |

The computer turns itself off.

If you are connected to a Windows® network server (domain server), power off the computer as follows:

1 Click the **Start** button, then **Shut down**.

The Shut Down window appears.

2 Select **Shut down** from the drop-down list.

3 Click **OK**.

The computer shuts down completely.

Turning off more quickly

In addition to the method described above, you can turn off the computer by pressing the power button.

To use this method, you first need to turn on the feature in TOSHIBA Power Saver.
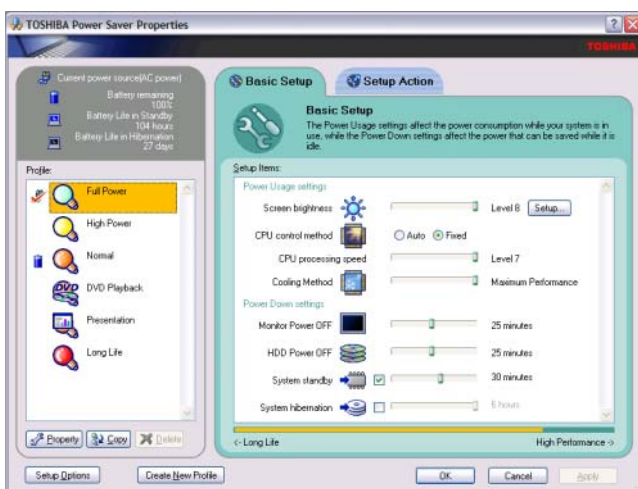
1   Click **Start**, **Control Panel.**

The Control Panel window appears.

2   Click **Performance and Maintenance**.

3   Double-click the **Toshiba Power Saver** icon.

The TOSHIBA Power Saver Properties window appears.

Sample TOSHIBA Power Saver Properties window

4   Click the **Setup Action** tab.
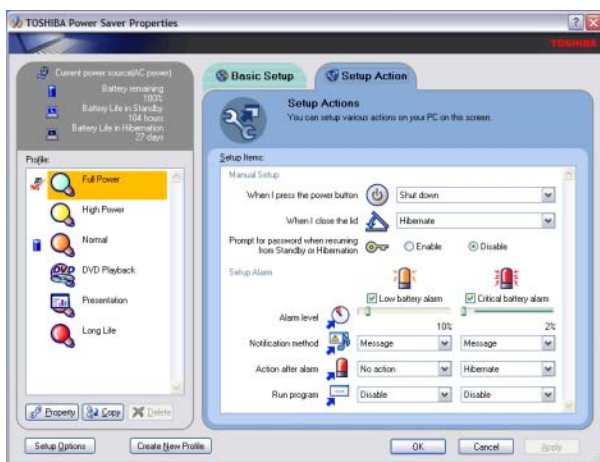
Sample Setup Action window

5 Select **Shut down** for the option you want.

❖ **When I press the power button**

Set this option to Shut down if you want the computer to turn off when you slide the power button.

6 Click **Apply**.

7 Click **OK** to close the TOSHIBA Power Saver Properties window, then close the Control Panel.

Starting again after Turn Off or Shut down

To start the computer up again, slide and release the power button; the on/off light changes to green.

Using Hibernation mode

Hibernation is a default setting. If it should become disabled, you can enable it as follows:

1   Right-click the mouse on the Toshiba Power Saver icon located in the System Task Tray.

2   Click **Hibernate**.

3   Click **Enable**.

Going into Hibernation mode

If you are not connected to a Windows® network server (domain server), power off the computer using the Hibernation command as follows:

1   Click **Start**, **Turn off computer**.

The Turn off computer window appears.
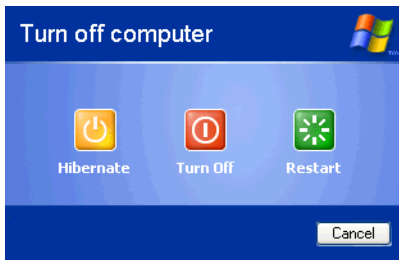
Sample Turn off computer window with Shift key held down to show Hibernate option

2   Hold down the shift key and click **Hibernate** ("Hibernate" only appears while the Shift key is held down).

The computer saves the state of the system, including all open programs and files, to the hard disk and then powers down completely.

If you are connected to a Windows® network server (domain server), follow these steps to power down the computer using Hibernation:

1   Click **Start**, then **Shut Down**.

    The Shut Down window appears.

2   Select **Hibernate** from the drop-down list of options.

3   Click **OK**.

The computer saves the state of the system, including all open programs and files, to the hard disk, and then powers down completely.

Configuring your computer for Hibernation

There are three other ways to put the computer into Hibernation mode:

❖   By pressing the power button

❖   By closing the display panel

❖   By pressing the hotkey combination Fn+F4

This section describes how to set up your Hibernation options for the first two methods. For information about the hotkey combination, see

To set up your Hibernation options:

1   Click **Start**, **Control Panel**.

    The Control Panel window appears.

2   Click **Performance and Maintenance**.

3   Double-click the **Toshiba Power Saver** icon.

    The TOSHIBA Power Saver Properties window appears.

Sample TOSHIBA Power Saver Properties window

4 Click to select a profile.

5 Click the **Setup Action** tab.

6 Select **Hibernation** for the options you want.

❖ **When I press the power button**

Set this option to Hibernation so that the computer will go into Hibernation mode when you press the power button.

❖ **When I close the lid**

Set this option to Hibernation so that the computer will go into Hibernation mode when you close the display panel.

7 Click **Apply**.

8 Click **OK** to close the TOSHIBA Power Saver Properties window, then close the Control Panel.

Starting again from Hibernation

Use these instructions to restart the computer when you enter Stand By mode by closing the display panel:

❖ AC power. Open the display panel.

❖ Battery power. Open the display panel and press the power button until the on-off light changes to green.

The computer returns to the screen you were previously using.

Using Stand By mode

If you are not connected to a Windows® network server (domain server), power down the computer using the Stand By command as follows:

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.
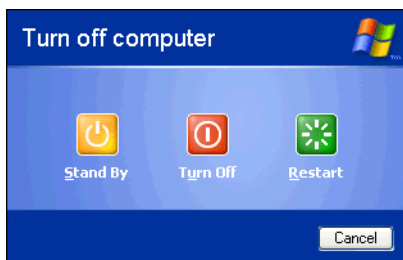
Sample Turn off computer window with Stand By option

2 Click **Stand By**.

The computer saves the state of all open programs and files to memory, turns off the display, and goes into a low-power mode. The on/off light (⏻) blinks amber indicating the machine is in Stand By mode.

If you are connected to a Windows® network server (domain server), power down the computer using the Stand By command as follows:

1   Click the **Start** button, then select **Shut down**.

    The Shut Down window appears.

2   Select **Stand by** from the drop-down list of options.

3   Click **OK**.

The computer saves the state of all open programs and files to memory, turns off the display, and goes into a low-power mode. The on/off light blinks amber to indicate the machine is in Stand By mode.

CAUTION   If you power down using the Stand By command and the battery discharges fully, your information will be lost. Be sure to save your work often.

Going into Stand By mode more quickly

There are three other ways to put the computer into Stand By mode:

❖   By pressing the power button.

❖   By closing the display panel.

❖   By pressing the hot key combination Fn+F3.

This section describes how to set up your Stand By options for the first two methods. For information about the hotkey combination, see "Stand By Mode" on page 230.

To set up your Stand By options:

1   Click **Start**, **Control Panel.**

    The Control Panel window appears.

2   Click **Performance and Maintenance**.

3   Double-click the **Toshiba Power Saver** icon.

    The TOSHIBA Power Saver Properties window appears.
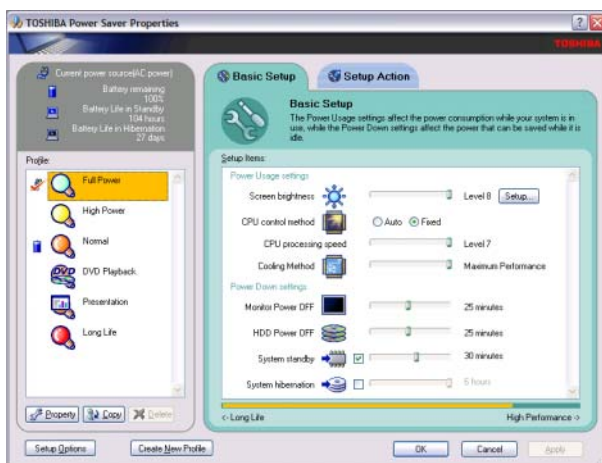
Sample TOSHIBA Power Saver Properties window

4 Click to select a profile.

5 Click the **Setup Action** tab.

Sample Full Power Properties window

6   Select **Stand By** for the options you want.

> ❖   **When I press the power button**
>
>   Set this option to Stand By so that the computer will go into Stand By mode when you press the power button.
>
> ❖   **When I close the lid**
>
>   Set this option to Stand By so that the computer will go into Stand By mode when you close the display panel.

7   Click **Apply**.

8   Click **OK** to close the TOSHIBA Power Saver Properties window, then close the Control Panel.

Starting again from Stand By

Use these instructions to restart the computer when you enter Stand By mode by closing the display panel:

AC power. Open the display panel.

Battery power. Open the display panel and press the power button until the on/off light changes to green.

The computer returns to the screen you were previously using.

Toshiba's online resources

Toshiba maintains a number of online sites to which you can connect. These sites provide information about Toshiba products, give help with technical questions and keep you up to date with future upgrades. For more information, see .

Chapter 3

Mobile Computing

This chapter covers all aspects of using your computer while traveling.

Toshiba's energy-saver design

Your computer enters a low-power Stand By mode when it is not being used, thereby conserving energy and saving money in the process. It has a number of other features that enhance its energy efficiency.

Many of these energy-saving features have been set by Toshiba. We recommend you leave these features active, allowing your computer to operate at its maximum energy efficiency, so that you can use it for longer periods while traveling.

Running the computer on battery power

The computer contains a removable Lithium-Ion (Li-Ion) battery that provides power when you are away from an AC outlet. You can recharge it many times.

Battery Notice

Battery life may vary, depending on applications, power management settings, and features utilized. Recharge time varies depending on usage. The battery may not charge while the computer is consuming full power.

After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries. To purchase a new battery pack, see your accessories information that shipped with your computer, or visit the Toshiba Web site at accessories.toshiba.com. Refer to this site often to stay current on the most recent software and hardware options for your computer, and for other product information.

To ensure that the battery maintains its maximum capacity, operate the computer on battery power at least once a month until the battery is fully discharged. Please see "Maximizing battery life" on page 124 for procedures. If the computer is continuously operated on AC power, either through an AC adapter or a docking station (if applicable to your system), for an extended period (more than a month), the battery may fail to retain a charge. This may shorten the life of the battery, and the battery light may not indicate a low-battery condition.

NOTE   For optimum DVD performance, Toshiba recommends that you play DVDs while running on AC power rather than on battery power.

NOTE   Over a period of time, and depending on the usage of the computer, the brightness of the LCD screen will deteriorate. This is an intrinsic characteristic of LCD technology.

The screen may be dimmer when the computer is operated on battery power. You may not be able to increase the brightness of the screen until you plug the computer into AC power again.

Using additional batteries

If you spend a lot of time traveling and need to work for many hours without an AC power source, you may want to carry additional charged batteries with you. You can then replace a discharged battery and continue working.

Charging the batteries

NOTE   Battery charge time may vary depending on the applications, power management settings, and features used.

The battery needs to be charged before you can use it to power the computer.

CAUTION   Never leave batteries in the battery charger for more than a week at a time. Doing so may reduce the potential charge of the battery.

Use only battery chargers designed to work with your notebook computer. You can order a Toshiba battery charger from Toshiba's Web site at accessories.toshiba.com.

Charging the main battery

To charge the main battery while it is in your computer, plug the computer into a live electrical outlet. The battery charges whether the computer is on or off.

TECHNICAL NOTE: When your computer is using all of the power provided by the AC Adapter to run applications, features, and devices, the recharging of the battery cannot occur. Your computer's Power Saver utility can be used to select a power level setting that reduces the power required for system operation and allows the battery to recharge.

The main battery light (⬜) glows amber while the battery is being charged, and glows green when it is fully charged.

The battery may not start charging immediately under the following conditions:

❖ The battery is extremely hot or cold.

To ensure that the battery charges to its full capacity, wait until it reaches room temperature.

❖ The battery is almost completely discharged.

Leave the power connected and the battery should begin charging after a few minutes.

Once the battery is fully charged, we recommend that you operate your computer on battery power until the battery discharges completely. Doing this extends battery life and helps ensure accurate monitoring of battery capacity.

Charging the RTC battery

Your computer has an internal real-time clock (RTC) battery. The RTC battery powers the System Time Clock and BIOS memory used to store your computer's configuration settings. When fully charged, it maintains this information for up to a month when the computer is powered off.

The RTC battery may have become completely discharged while your computer was shipped, resulting in the following error message during startup:

BAD RTC BATTERY
BAD CHECKSUM (CMOS)
CHECK SYSTEM

NOTE   The above error message may vary by computer model.

The RTC battery does not charge while the computer is turned off even when the AC adapter is charging the computer.

If the RTC battery is low, the real-time clock and calendar may display the incorrect time and date, or stop working.

To recharge the RTC battery, plug the computer into a live electrical outlet and leave the computer powered on for 24 hours.

NOTE   It is seldom necessary to charge the RTC battery because it charges while the computer is on. If the RTC battery is low, the real-time clock and calendar may display the incorrect time and date or stop working.

When Hibernation mode is enabled and the RTC battery is completely discharged, a warning prompts you to reset the real-time clock.

The computer can be used while the RTC battery is being charged, although the charging status of the RTC battery cannot be monitored.

Monitoring battery power

The computer's battery light gives you an indication of the battery's current charge:

❖ Green means the battery is fully charged.

❖ Amber means the battery is charging (AC Adapter connected).

❖ Off (no illumination) indicates one of the following conditions: the battery is dead, the battery is not charging, the battery is not fully charged, or the AC adapter is not plugged in to the computer or AC outlet.

NOTE Battery life and charge time may vary, depending upon power management settings, applications and features used.

❖ Flashing amber means the battery charge is low and it is time to recharge the battery or plug in the AC Adapter.

HINT: Be careful not to confuse the battery light (⬜) with the on/off light (⏻). When the on/off light flashes amber, it indicates that the system is suspended (using the operating system Stand By command).

Determining remaining battery power

Wait at least 16 seconds after turning on the computer before trying to monitor the remaining battery power. The computer needs this time to check the battery's remaining capacity and perform its calculations.

1 Click **Start**, then click **Control Panel**.

2 Click **Performance and Maintenance**.

3 Click the **Toshiba Power Saver** icon.

The Power Saver Properties window appears.

The current power source and battery power remaining section displays the current charge state of the battery. The value is shown as a percentage of remaining battery charge.

TECHNICAL NOTE: The computer drains the battery faster at low temperatures. Check your remaining charge frequently if you are working in temperatures below 50 degrees Fahrenheit.

The computer calculates the remaining battery charge based on your current rate of power use and other factors such as the age of the battery.

What to do when the battery runs low

When the battery runs low you can:

❖ Plug the computer into an external power source and recharge the battery.

❖ Put the computer in Hibernation mode and replace the battery with a charged spare.

❖ Connect the computer to the optional high-capacity battery.

❖ Save your work and turn off the computer.

If you do not manage to do any of these things before the battery completely runs out of power, the computer automatically enters Stand By mode and turns itself off. Stand By mode keeps track of where you were so, when you turn on the power again, you can continue where you left off.

The computer stores information on what you were doing until the battery runs out of power. If you have Hibernation mode enabled (the default), the computer copies the details of your open programs and files to the hard disk before shutting down.

Conserving battery power

How long a fully charged battery lasts when you are using the computer depends on a number of factors, including:

❖ How the computer is configured.

❖ How much you use the display panel instead of an external monitor.

❖ How much you use the hard disk and other drives.

❖ Whether you use any optional devices to which the battery supplies power.

❖ Where you are working—since operating time decreases at low temperatures.

Toshiba's power-saving options greatly increase the length of time you can use the computer before having to recharge the battery.

Toshiba has combined these options into several preset power usage modes.

Setting a power usage mode

NOTE   Toshiba recommends that you use the Toshiba Power
Management Utility for changing system power settings.

1   Click **Start, Control Panel**.

The Control Panel window appears.

2   Click **Performance and Maintenance**.

3   Click the **Toshiba Power Saver** icon.

The TOSHIBA Power Saver Properties window appears.

Sample TOSHIBA Power Saver Properties window

By changing the options that appear in the Power Saver
Properties dialog box and clicking **OK**, you can reconfigure
that function. You may choose a power-saving management
strategy to best suit your computing needs. If you are running
on batteries and the programs that you are using do not
require a lot of system resources, you may experience longer
work sessions by enabling the Normal setting. Any options
that you change become the active settings when you exit the

program. (You do not have to restart your system before they become active settings.)

Using a hot key to select the power usage mode

1   Press Fn and F2 simultaneously to display the power usage pop-up window.

2   While continuing to press Fn, press F2 until you select the desired power usage mode.

3   Release the Fn key.

    The computer is now in the selected mode.

Using battery alarms

You can configure the computer to warn you when the battery is running low.

Setting battery alarms

You can set two alarms. Each alarm can be set to alert you when a specified percentage of remaining battery power has been reached. You can set how the warning occurs: sound an alarm, display a message, both, or none. You can also set the computer to enter Stand By mode or Hibernation mode or to completely power down when the alarm goes off.

To set an alarm or alarms:

1   Click **Start**, **Control Panel**.

2   Click **Performance and Maintenance**.

3   Click the **Toshiba Power Saver** icon.

    The TOSHIBA Power Saver Properties window appears.

4   Click the **Setup Action** tab and set the alarm(s), as desired.

Turning off the display automatically

To save power, it is a good idea to set the display to turn off automatically when you are not using the computer. You can do this several ways:
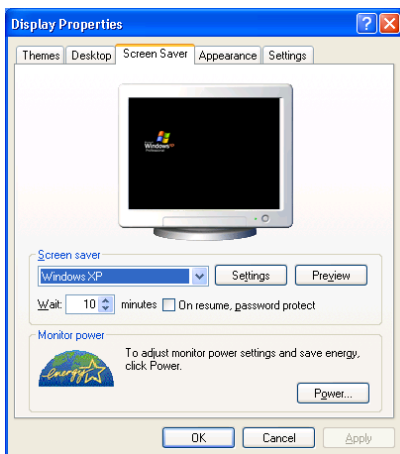
❖ Use the Display Properties to enable the blank screen saver.

❖ Use the Power Saver Properties to turn off the LCD panel after a certain amount of time has passed.

Enabling the screen saver and monitor power off time

1 Click **Start**, **Control Panel**.

2 Click **Appearance and Themes**.

3 Click **Display**.

The Display Properties window appears.

4 Click the **Screen Saver** tab.

Sample Display Properties window with Screen Saver tab

5 Select the screen saver that you want to use from the drop down list.

6   Click the up and down buttons to set the number of minutes of inactivity that activates the screen saver. For example, if you want the screen saver to activate after 10 minutes of inactivity, select 10 minutes in the Wait box.

7   Click **OK** if you do not want to adjust the time before the monitor (LCD display) is turned off. Otherwise, continue to step 8.

8   Click **Power**.

9   Adjust the time before the monitor (LCD display) is turned off. Select a setting for running off your battery, and a setting for running off AC power.

10   Click **OK**, then click **OK** again.

Changing the battery

When your battery has run out of power, you have two options: plug in the AC Adapter or install a fresh battery.

TECHNICAL NOTE: To avoid losing any data, save your files and then either completely shut down your computer, or put it into Hibernation mode before changing the battery.

Removing the battery from the computer

CAUTION   When handling batteries, do not drop or knock them. Also, be careful not to damage the casing or short-circuit the terminals.
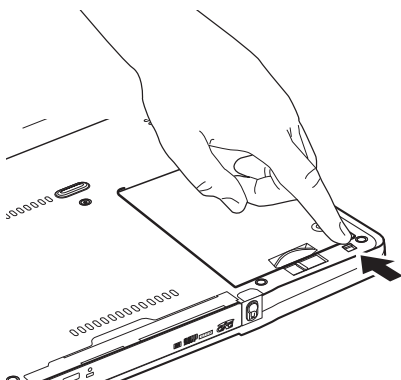
To remove the battery:

1   Save your work.

2   Shut down and turn off the computer.

3   Remove all cables connected to the computer.
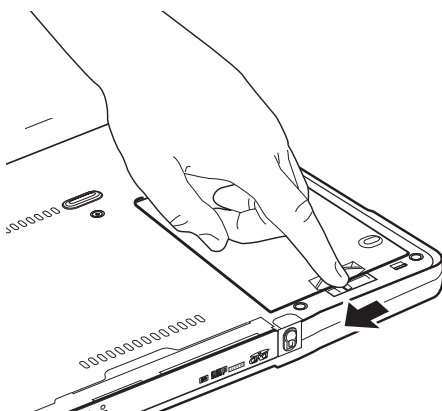
4 Turn the computer over.

CAUTION   Before you turn the computer over, make sure that the computer display is properly closed and is **not** in tablet mode. Setting the computer down on the display may cause damage to the screen.
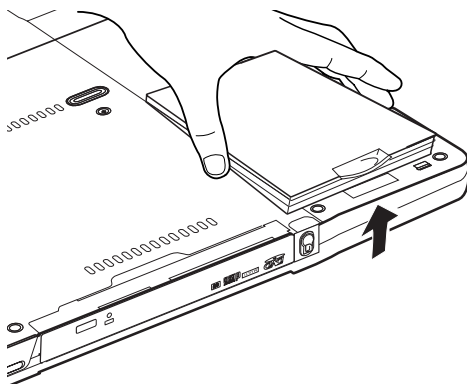
5 Slide the battery lock to the left.

Sample unlocking the battery

6 Slide the release latch toward you.

Releasing the battery

7 Insert a fingertip in the battery pack recessed area.

8 Pull the discharged battery module out of the computer.

Removing the discharged battery

WARNING If the battery is leaking or its case is cracked, put on protective gloves to handle it, and discard it immediately following the advice in "Disposing of used batteries safely" on page 126.

Inserting a charged battery

1 Wipe the terminals of the charged battery with a clean cloth to ensure a good connection.

2 Insert the charged battery into the slot.

The battery has been designed so that you cannot install it with reverse polarity.

CAUTION If the battery does not slide into the slot easily, remove the battery and try again. Do not force the battery into position.

3 Lock the battery into place using the battery lock.

4 Reconnect any cables.

5 Restart the computer.

Taking care of your battery

The following sections offer tips on how to take care of your battery and prolong its life.

Maximizing battery life

To maximize the life of your battery:

❖ At least once a month, disconnect the computer from a power source and operate it on battery power until the battery fully discharges. Before doing so, follow the steps below:

1 Turn off the computer's power.

2 Disconnect the AC adapter and turn on the computer's power. If it does not turn on, go to step 4.

3 Operate the computer on battery power for five minutes. If the battery has at least five minutes of operating time, continue operating until the battery is fully discharged. If the battery light flashes or there is some other warning to indicate a low battery, go to step 4.

4 Connect the AC adapter to the computer and the power cord/cable to a power outlet. The DC-IN (if applicable to your system) or AC power light should glow green, and the battery light should glow amber to indicate that the battery is being charged. If the DC-IN or AC power light indicator does not glow, power is not being supplied. Check the connections to the AC adapter and power cord/cable.

5 Charge the battery until the battery light glows green.

❖ If you have extra batteries, rotate their use.

❖ If you will not be using the system for an extended period (more than one month) remove the battery.

❖ Disconnect the AC adapter when the battery is fully charged. Overcharging makes the battery hot and shortens life.

❖ If you are not going to use the computer for more than eight hours, disconnect the AC adapter.

❖ Store spare batteries in a cool dry place out of direct sunlight.

Battery safety precautions

❖ If the battery pack produces an odor, overheats or changes color or shape while it is being used or charged, turn off the computer's power immediately and disconnect the power cord/cable from the power socket. Carefully remove the battery pack from the computer.

❖ Do not try to disassemble a battery pack.

❖ Do not overcharge or reverse charge a battery. Overcharging will shorten its life, and reverse charging could damage it.

❖ Avoid touching the metal terminals of the battery with another metal object. Short-circuiting the battery can cause it to overheat and may cause damage to the battery or the computer.

❖ Do not incinerate a spent battery, as this could cause it to explode and release toxic materials.

❖ If a battery is leaking or damaged, replace it immediately. Use protective gloves when handling a damaged battery.

❖ To replace the main battery, use an identical battery that you can purchase through the Toshiba Web site at accessories.toshiba.com.

❖ A reverse polarity condition should be avoided with all batteries. The main battery is designed so that it cannot be installed in reverse polarity.

❖ Charge the battery only in the computer or in a battery charger designated as an approved option.

❖ When you install the battery pack, you should hear a click when it is seated properly.

❖ Do not expose the battery pack to fire. The battery pack could explode.

Disposing of used batteries safely

The life of a battery pack should last for years, depending on use. When the battery pack needs replacing, the main battery light flashes amber shortly after you have fully recharged the battery.

You must discard a battery if it becomes damaged.

⚠ WARNING The computer's main battery is a Lithium-Ion (Li-Ion) battery, which can explode if not properly replaced, used, handled, or disposed of. Putting spent batteries in the trash is not only irresponsible, it may be illegal. Dispose of the battery as required by local ordinances or regulations.

Use only batteries recommended by Toshiba.

After repeated use, the batteries will finally lose their ability to hold a charge and you will need to replace them. Under federal, state and local laws, it may be illegal to dispose of old batteries by placing them in the trash.

Please be kind to our shared environment. Check with your local government authority for details regarding where to recycle old batteries or how to dispose of them properly. If you cannot find the information you need elsewhere, call Toshiba at: (800) 457-7777.

Traveling tips

The environmental precautions listed in "Selecting a place to work" on page 42 also apply while traveling.

❖ Never leave your computer on a sunny ledge or in a place where it could get splashed with moisture or covered in dust.

❖ Always travel with the computer in a carrying case. Toshiba offers a choice of carrying cases for the computer. They all provide plenty of extra space for manuals, power cords/cables, diskettes, etc. See your dealer for more information.

NOTE   When traveling by air, you may be required to put your notebook through airport security. The X-ray equipment used will not harm your computer.

Chapter 4

Exploring Your Options

In this chapter, you will explore other features of your notebook computer.

Windows® XP special features

The Windows® XP Tablet PC Edition operating system offers you several new features and enhancements, including:

❖ New system file protection

❖ A system restore function, allowing you to rollback the system to its previous mode

❖ An improved help center, support automation, and automatic Windows® operating system update

❖ Wizards to simplify setting up your home network

❖ Ability to share one Internet connection among multiple PCs

❖ An automatic discovery feature that allows your computer to detect new and intelligent devices

Personalizing your desktop

Your desktop is your virtual workspace. This section explains how to customize its features for the way you like to work. You can customize the following aspects of the desktop:

❖ Taskbar—which resources to display for quick access

❖ Web content interface—what information from the Internet to display

❖ Desktop style—how windows are displayed and how to browse folders and files

❖ Toolbars—what information appears at the top of each window

Customizing the taskbar

As you work, the taskbar changes to reflect what you are doing. Its icons provide shortcuts to programs, documents, files, folders, system features, and components. Open applications also have Forward and Backward buttons to allow navigation through folders, documents, and Web sites.

DEFINITION: URL stands for Uniform Resource Locator, which is the address that defines the route to a file on the Web or any other Internet facility. Generically, it is known as the World Wide Web site address.

To customize your taskbar settings, point to an empty space in the taskbar and click the secondary button. Then click **Properties**.

Bringing the world to your desktop

With the Windows® Professional Tablet Edition operating system you can set up your desktop with complete World Wide Web integration at a single click.

Turning on the Web content interface

The first step to bring active content to your desktop is to turn on the Web content interface:

1 Point to an empty space on the desktop and click the secondary button.

2 Click **Properties.**

The Display Properties window appears.

3 Click the **Desktop** tab.

4 Click the **Customize Desktop** button.

5 Click the **Web** tab.

6 Follow the instructions to set up your desktop.

Adding components to the Web content interface

1 Point to an empty space on the desktop and click the secondary button.

2 Click on **Properties.**

The Display Properties window appears.

3 Click the **Desktop** tab.

4 Click the **Customize Desktop** button.

5 Click the **Web** tab.

The operating system displays a list of items to add to the desktop.

6 To view additional components, click **New.**

The New Desktop Item dialog box appears.

7 To browse the Gallery for more components to add, click **Visit Gallery**.

In order to browse, an active Internet connection must be established.

8 To select some other Web site, type the address of the Web site you want or click **Browse** to locate it.

You can configure the Web content interface in several other ways. For further information, see your operating system documentation or access Windows® Help by clicking **Start**, **Help and Support**.

Changing desktop and browsing style

The operating system enables you to customize the way you view your desktop and browse the files and folders on your local computer or network file server.

You can specify that:

❖ Items that normally require a double-click will open with a single click.

❖ Folders will open in their own window instead of in the same window.

❖ Folders are accompanied by a list of common tasks instead of being displayed alone.

The options you choose determine how you browse in the operating system, regardless of whether you start from the desktop, My Computer, Windows Explorer, or Internet Explorer.

For more information about changing your desktop style, enter desktop in the Help and Support Index.

Choosing a style

To select desktop and browsing style options:

1 Click **Start**, then click **My Computer**.

The My Computer window appears.

2 Select the **Tools** menu, then click **Folder Options**.

The Folder Options dialog box appears.
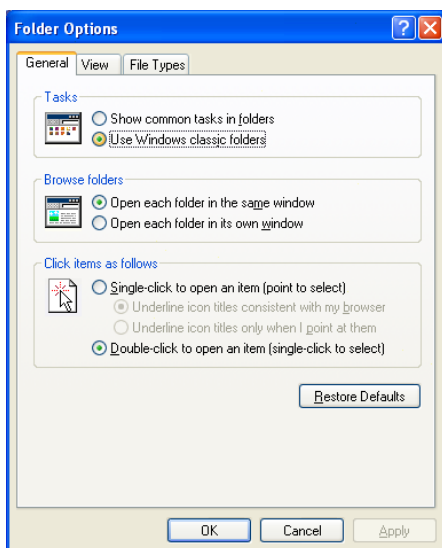
Sample Folder Options dialog box

3 Click the preferred options.

4 Click **Apply**, then **OK**.

Personalizing individual windows

Just as you can display a Web page on your desktop, you can
also display a Web page in an individual window. If you
subscribe to the Web page, it can be automatically updated on
a regular basis. For example, using this Web integration
feature you can monitor weather, game scores, stock prices,
or headlines—all in the window of your choice.

Customizing window toolbars

You can display one or more customizable toolbars at the top
of a window. As you browse, the operating system detects the
kind of information presented in the window and
automatically displays the appropriate toolbar buttons and
menus.

You can also add these toolbars to the taskbar.

Address bar   Standard buttons
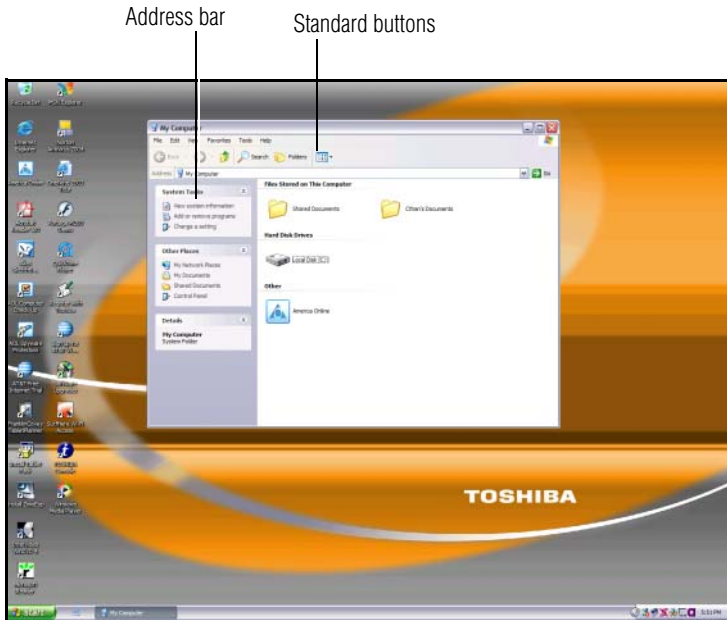
Sample toolbar locations

The elements you can add to the top of the window are:

Toolbar element	*Description*
Address Bar	Opens Web pages, programs, folders, or documents. By default, the address bar shows your current location, and whether it is a folder or a Web page. You can browse to another location by typing an address — a URL, a path, or even a program name.
	If you start typing a previously typed address, the AutoComplete feature finishes the address for you.

Toolbar element	*Description*
Standard buttons	Displays buttons for commonly used commands, such as copying, pasting, deleting items, changing views, and browsing backward and forward.

Displaying a toolbar in a window

1 Click **Start**, then click **My Computer**.

The My Computer window appears.

2 On the **View** menu, point to **Toolbars**, then click the name of the toolbar you want to display.

The toolbar appears below the menu bar of the current window.

Displaying information about each folder

In addition to displaying the contents of each window, you might find it helpful to have the operating system display the name of the folder and brief information about how to use the folder. This means displaying an individual window as a Web page.

1 Click **Start**, then click **My Computer**.

The My Computer window appears.

2 Open the folder you want to view as a Web page.

3 In the **Tools** menu, select **Folder Options.**

4 In the Tasks section, click the button for **Show common tasks in folders**.

5 Click **Apply**, then **OK**.
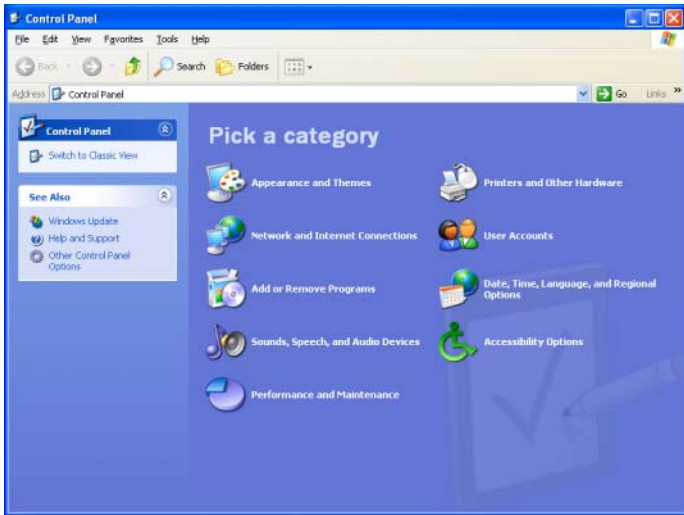
Sample Control Panel window as a Web page

The addition of the name of the folder and instructions for how to use the folder on the left give the window the appearance of a Web page.

Setting up for communications

To connect to the Internet, use an online service, or communicate across the telephone lines with another computer, you need:

❖   A modem (one comes with your computer)

❖   A telephone line

❖   A browser or communications program

❖   An Internet Service Provider (ISP) or online service if you plan to use the Internet

Determining the COM port

Your modem is connected to one of the computer's COM (communications) ports. The default setting for the modem is COM3.

The following procedure is intended to support you if you need to either upgrade your modem or reset the port to the default settings.

If you are having trouble connecting through the modem, you may need to determine the current COM port name and possibly change it.

To find out which port your modem is connected to in the operating system:

1 Click **Start**, click **Control Panel**, then **Printers and Other Hardware**.

The Control Panel opens.

2 Click **Phone and Modem options**.

The Phone and Modem options window appears.

3 Click the **Modems** tab.

A location box appears.

4 Make a note of the COM port number shown in the **Attached to** field.

5 To verify that the modem is set up properly, double-click the COM port to which your modem is connected.

The Modem AMR Properties box appears. In the device status area, the computer should indicate whether the modem is working properly.

6 If the modem is not working properly, click **Troubleshooting** and follow the instructions.

7 Click **OK** to close the Properties box, then the Phone and Modem options box.

8 Close the Control Panel.

For more information regarding your system's V.92 modem, visit the Toshiba web site at pcsupport.toshiba.com.
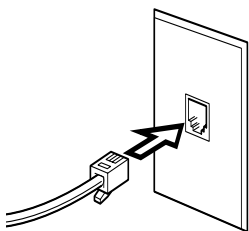
Connecting the modem to a telephone line

Before you can communicate using the modem, you need to connect it to a telephone line. Your computer's built-in modem provides an RJ11 jack, allowing you to connect the modem to a standard voice-grade telephone line.

1   Plug one end of a telephone cable (purchased separately) into the modem port on the back of the computer.
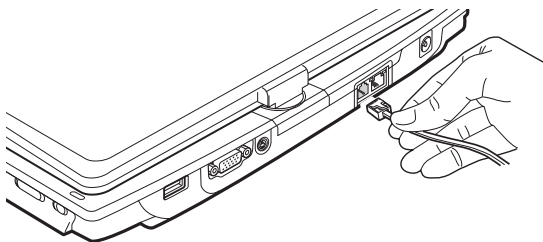
Sample connecting the telephone cable to the modem port

2   Connect the other end to the RJ11 wall jack.

Sample connecting to a wall jack

CAUTION   The modem is designed for use with a standard analog telephone line. Never connect the modem to a digital telephone line. A digital line will damage the modem.

Now you are ready to send a fax or use the modem to connect to an online service or the Internet.

Connecting your computer to a network

You can connect your computer to a network to increase its capabilities and functionality using one of its communication ports.

Accessing a network

To access a network:

❖   At the office, connect an Ethernet cable to the RJ-45 jack on your computer. For specific information about connecting to the network, consult your network administrator.

❖   While you are at home or traveling, you may need a dial-up connection. Ask your network administrator for the telephone number of the network.

Using the Ethernet LAN Port

If your operating system is Windows® XP Tablet PC Edition, you can connect your computer to a Local Area Network (LAN) at work or from a remote location.

When your computer starts, the Windows® operating system attempts to contact a Dynamic Host Configuration Protocol (DHCP) server. If the computer is not connected to a network, it may pause a few minutes as it waits for a reply. To avoid this delay, you can configure the Windows® operating system to disable the LAN port.

To disable the LAN port:

1   Click **Start** and then click **Control Panel**.

2   Click **Performance and Maintenance**.

3   Click the **System** icon and select the **Hardware** tab, then select the **Device Manager** button.

4 Select **Network Adapters**, then select the appropriate
network adapter.

5 Right-click the **Adapter** and click **Disable**.

6 Click **Yes** to confirm disabling the network card.

Your LAN port is now disabled.

Using Wireless LAN Connectivity

NOTE   The transmission speed over the wireless LAN and the
distance over which wireless LAN can reach may vary
depending on surrounding electromagnetic environment,
obstacles, access point design and configuration, and client
design and software/hardware configurations.

Your system may come with an optional wireless LAN
module. This is a technology that expands wireless
communication beyond networking equipment, and can
connect many different kinds of electronic devices without
the need for cables.

For information on how to set up a wireless connection, refer
to your wireless networking device documentation or your
network administrator.

To use your wireless communication, slide the wireless
antenna on/off switch to the On position.

Accessing the wireless modules using your system tray

The following information applies to systems with the
optional Wi-Fi and Bluetooth features:

When using your Wi-Fi Mini PCI module and/or Bluetooth
module, your computer may display an icon in the desktop's
system tray to indicate that it is in use. Do not confuse the
system tray's icon with other removable PC Card devices you
may have installed.

Your Wi-Fi Mini PCI and Bluetooth modules are integrated into your computer system. It is recommended that you do not remove the modules from your computer. For assistance, contact a Toshiba Authorized Service Provider.

Using Bluetooth

The following information applies to those systems with the optional Bluetooth wireless feature:

Bluetooth is a technology that expands wireless communication beyond networking equipment, and can connect many different kinds of electronic devices without the need for cables.

If your computer is equipped with Bluetooth, and you want to enable the Bluetooth module:

1   Slide the wireless antenna on/off switch to the on position.

The antenna is enabled.

2   Hold down the function key (Fn) and press F8 until the Bluetooth icon is highlighted.

3   Release the keys.

Bluetooth is now enabled.

NOTE   Your Bluetooth module is based on the Bluetooth specification version 1.1. Toshiba cannot confirm compatibility with all PC products and/or electronic devices using Bluetooth other than Toshiba mobile PCs.

An overview of using the Internet

The following sections give a quick introduction to the Internet and some of its exciting features, under these headings:

❖ The Internet

❖ The World Wide Web

❖ Internet Service Providers

❖ Connecting to the Internet

❖ Surfing the Internet

❖ Internet features

❖ Uploading and downloading files from the Internet

The Internet

The Internet is an association of thousands of networks and millions of computers around the world connected by communications lines. They all work together to share information.

The World Wide Web

The World Wide Web (or 'Web') is a subset of the Internet — a collection of interlinked documents (located on computers connected to the Internet) that work together using a specific Internet protocol called Hypertext Transfer Protocol (HTTP).

The World Wide Web offers information as text, images, audio, or video to be referenced from anywhere in the world. Special programs called Web browsers are specifically designed to work with HTTP. They make it easier to connect to a particular network address and send and receive information.

Internet Service Providers

To connect a computer directly to the Internet, many people and businesses use an Internet Service Provider (ISP). An ISP is a company that has the equipment and the telecommunication lines necessary to maintain an Internet connection.

You can connect to the Internet by using a telephone and modem or through other higher-speed communication methods such as Digital Subscriber Lines (DSL), cable, and satellite links.

Connecting to the Internet

To connect to the Internet, you need:

❖ A modem and telephone line, or a LAN connection

❖ A Web browser

❖ An Internet Service Provider (ISP) account

The Microsoft® Web browser Internet Explorer is automatically configured on your system so that when you first start it, it guides you through signing up for a new ISP account, or assists you in setting up your computer to work with your existing ISP.

Once you have established an ISP account, you can connect to the Internet.

1   Connect your computer's modem to a telephone line.

  For more information on connecting to a modem, see "Connecting the modem to a telephone line" on page 137.

2   Start your Web browser. Have your modem dial the ISP's telephone number, and establish a connection with the ISP's computer.

If you are using your computer at the office, then you probably connect to the Internet through your company's

network. See your network administrator about connecting to the Internet.

Surfing the Internet

Once connected to the Internet, the Web browser displays a home page, for example, your ISP's home page on the Internet or your company's Web site home page.

To visit a desired Web site, type in the Web address. The Web address, or Uniform Resource Locator (URL), is a unique identifier for that computer system linked to the Internet. Web addresses can also appear within a Web page's text, and are known as links. Clicking a link automatically displays the site on your Web browser.

You can also use a Search Engine, a Web site specifically designed to help you look for information.

Internet features

The Internet offers many types of communication tools to help you perform many tasks.

❖ Internet email

To send and receive email of your own, you need a mailbox on the Web, or an email address.

If you have an account with an ISP, you can probably set up an email address at the same time as you sign up for the service.

❖ Internet chat rooms

A chat room is a Web site that offers a place where people with similar interests and ideas can communicate in real-time, one-on-one or in groups, by typing messages which are instantly viewed by others on their computer screens.

❖ Internet news groups

A news group is similar to a chat room, but instead of using a dedicated site to converse about a specialized subject with others in real-time, it uses a Web site as a clearinghouse where all the messages are placed, like a gigantic bulletin board.

❖ Online shopping

Many Web sites offer products and services for sale.

Uploading and downloading files from the Internet

Transferring files from one computer to another is termed uploading (transferring data from your computer to a site on the Web), or downloading (transferring data from a site on the Web to your computer).

There are several ways to upload or download data. It can be as simple as attaching a file or document to an email, or you can use the File Transfer Protocol (FTP) features of your Web browser to transfer large amounts of data.

Exploring audio features

Your computer is equipped with a built-in monaural speaker.

The computer plays sounds through the internal speaker. It uses the sound settings in your operating system, except for the system speaker, which is configured by the Toshiba System utility. To adjust the volume, click the speaker icon in the taskbar.

Using external speakers or headphones

CAUTION Before playing an audio CD, turn the volume down. Playing the compact disc at maximum volume could damage your ears. To turn the volume down, use the Volume Control switch or access the Volume Control program (click Start, All Programs, Accessories, Entertainment, Volume Control).

Your computer is equipped with a sound system with an internal speaker. Instead of using the internal speaker, you can connect headphones or a pair of external stereo speakers.

TECHNICAL NOTE: Use amplified speakers that require an external power source. Other types of speakers will be inadequate to produce sound from the computer.

To play back sound files through headphones or external speakers:

1 Locate the headphone jack on the front of the computer.

2 Using any necessary adapters, plug the cable from the headphones or external speakers into the headphone jack.

  The headphone jack requires a 16-ohm stereo mini jack.

To adjust the volume:

❖ For external speakers, use the volume controls on the speakers.

❖ For headphones, use the computer's volume control dial.

Recording sounds

An external microphone may be used with other software to record monaural audio sounds and save them as digital audio .WAV files on disk.

DEFINITION: A .WAV (pronounced "wave") file is one of the formats for storing sound in files.

You may also record sounds as .WAV files by connecting other sound sources to the microphone jack.

Using a microphone

1 Connect an external microphone to the computer.

2 Click **Start**, point to **All Programs**, **Accessories**, **Entertainment**, then click **Sound Recorder**.

Positioning bar

Record
Stop
Play
Skip forward
Skip backward
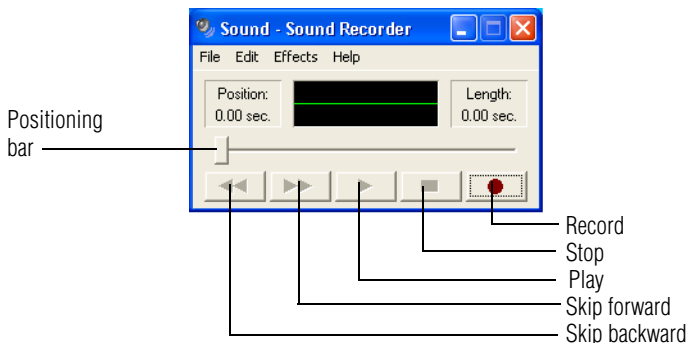
Sample Sound Recorder screen

3 Click the **Record** button and speak normally into the microphone.

NOTE You can only record 60 seconds at a time.

4 When you have finished recording, click the **Stop** button.

5 To hear what you just recorded, click the **Play** button.

6 To save the file, select **Save** from the **File** menu.

NOTE The microphone on your computer might be set to Mute. To check this, click Start, point to All Programs, Accessories, Entertainment, and then click Volume Control.

Using tablet mode

One of your computer's features is a convertible display that allows you to use the screen much as you would a writing tablet.

CAUTION Use the included electronic pen to write on the display. If you use any other tool (for example, a regular pen or pencil) you may damage the display.

Your computer came with applications already installed specifically designed to work with the tablet feature of the system. For more information on those applications, see the documentation provided with them.

Preparing to use the tablet

1 Press the display panel release button and lift the display panel.

2 Slide the power button to the right and hold it until the on/off light on the system indicator panel glows green—about one second.

3 Rotate the display panel **clockwise** 180º (degrees). When you complete this task, the screen clicks into place and faces away from the keyboard.

CAUTION When rotating your computer's LCD screen, be sure to slowly turn the screen in the proper direction. Do not apply excessive force or speed.
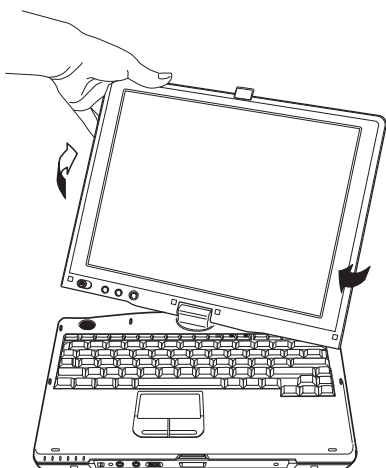
Sample rotating the display panel clockwise 180º

4 Flip the display latch so it points toward the back of the display panel.

5 Fold the display panel down flat over the keyboard.

The display latch will click and lock the screen in tablet position.

Display Latch
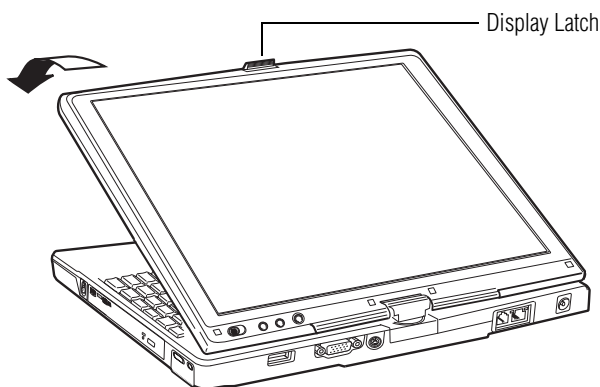
Sample folding the display panel down flat

By default, the computer desktop will automatically rotate to primary portrait view. For more information on changing tablet screen settings, see "The Toshiba Rotation Utility" on page 174.

6   To send the video to an external monitor, use the Cross Menu button (the Cross-Functional button) and select the display option.

NOTE   You should view video on an external monitor in primary landscape mode. Any other orientation will display the external video resolution incorrectly.

Using the Toshiba tablet pen

1   Remove the Toshiba tablet pen which is located on the right side of the computer by momentarily pressing and then releasing. Pull the pen from the holder.
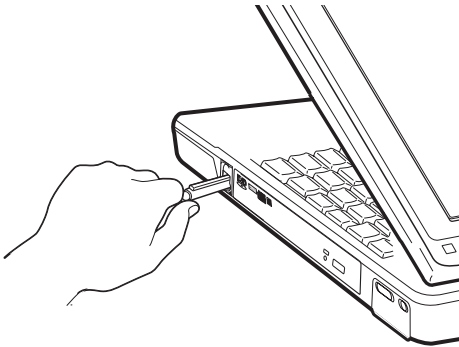
Sample removing the Toshiba tablet pen

NOTE	Your computer may have come equipped with an optional emergency pen to use when the primary pen is unavailable. To access the optional emergency pen, you must first remove the battery following the procedures described in "Changing the battery" on page 121. Once the battery is removed, locate the optional emergency pen inside the battery compartment.

2   Use the Toshiba tablet pen on the tablet as you would any pointing device or pen.
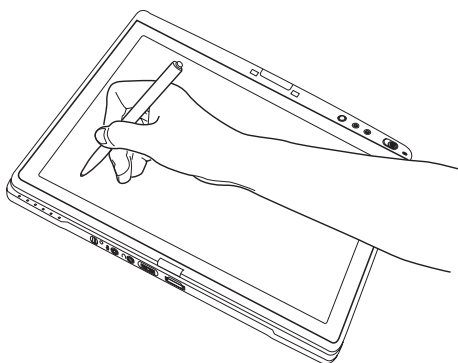
Sample writing on the tablet

NOTE	You can also use tablet mode when the computer is in its original configuration, with the screen open and facing the keyboard.

Use the Toshiba tablet pen as you would a mouse, or other pointing device. For example, you can execute "mouse type" commands in the same manner you normally would:

❖   To move the pointing icon (or cursor) on the tablet, lightly drag the Toshiba tablet pen across the tablet.

❖   To click a button, gently press the Toshiba tablet pen on it (one click).

❖ To launch an application from the desktop, press the Toshiba tablet pen on the icon (some applications may require you to press it twice - two clicks).

❖ To drag a screen to another location on the tablet, press the Toshiba tablet pen on the screen's Title Bar. Hold the pen down and drag the window to its new location.

When working in a supported application, you can use the Toshiba tablet pen like a pen and simply draw or write directly onto the tablet's work space.

Returning the computer to its original configuration

When you are finished using the tablet, follow the steps below to return the computer to its original configuration:

1 Return the Toshiba tablet pen to its slot on the right side of the computer.

2 Press the display latch release button.

3 Lift the display panel to its upright position.

4 Rotate the display panel **counter-clockwise** 180º. When you complete this task, the screen returns to its normal position facing the keyboard.

5 Slide the display latch toward the LCD screen.

Using the i.LINK® port

The i.LINK® port on the left side of the computer provides an extremely fast data transfer rate.

Using PC Cards

Your computer comes with one PC Card slot and supports two types of PC Cards:

❖ Type I Cards--You can install one of these cards

❖ Type II Cards--You can install one of these cards

TECHNICAL NOTE: For PCMCIA-compatible PC Cards, check the package to make sure they conform to the PCMCIA 2.1 standard (or later). Other cards may work with your computer, but they are likely to be much more difficult to set up and use.

Inserting a PC Card

Before inserting a PC Card, read the documentation that came with the card to see if it has any special requirements.

HINT: The operating system provides the Card and Socket Services software for your PC Card. Even if your PC Card comes with its own version of Card and Socket Services, you should use the files included in the operating system.

To insert a PC Card:

1   Locate the PC Card slot on the left side of the computer.

2   Insert the PC Card.
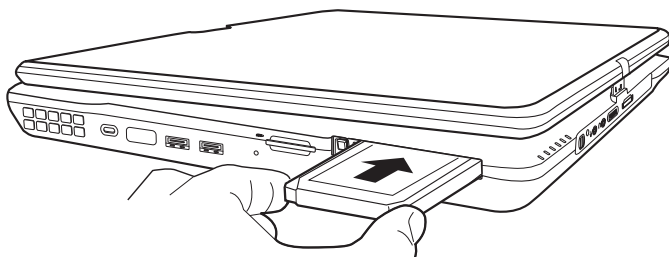
Sample inserting a PC Card

3   When the card is almost all the way into the slot, push firmly, but gently, to ensure a firm connection with the computer. Avoid forcing the card into position.

Removing a PC Card

Stop the PC Card by clicking the **Safely Remove Hardware** icon on the System tray. After the PC Card is stopped, it is safe to remove.

1   Locate the PC Card eject tab.

2   Push the eject button.

     The eject button pops out from the slot.

3   Push the eject button again so the card will pop out.

4   Grasp the edges of the PC Card and pull it out of the slot.

Hot swapping PC Cards

With PC Cards you can replace one PC Card with another while the computer is on. This is called "hot swapping."

Hot swapping precautions

Although you can insert a PC Card at any time, remember not to remove a card while it is in use. Otherwise, you could lose valuable information.

For example:

❖   Never remove a hard disk card or CD-ROM drive card while the system is accessing the card.

❖   Never remove a network card while you are connected to the network.

❖   Never remove a SCSI card while any of the SCSI devices connected to it are operating.

Before removing a PC Card, stop it by clicking the **PC Card** (PCMCIA) icon on the taskbar.

Using an optional SD® card

Your computer supports the use of an SD card. The card can be used with a variety of digital products: digital music players, cellular phones, PDAs, digital cameras, digital video camcorders, etc.

CAUTION Do not touch the SD connector. You could expose the storage area to static electricity which can destroy data.

Do not remove an SD card while data is being written to or read. Even when the message "copying..." in the windows disappears, the computer may be writing to the card and your data could be destroyed. Wait for the SD indicator light to go out.

NOTE Do not use the Copy Disk function for this type of media. To copy data from one media to another, use the drag-and-drop feature of Windows.

Installing SD card drivers

During installation of the SD card drivers, one or more dialog boxes may appear indicating that the driver is not digitally signed. The message may appear as "Digital Signature not found (About Secure Digital Emulation from Toshiba)." Click **Yes** to continue.

Inserting an SD card

To insert an SD card, turn the card so that the connector (metal area) faces down then push the card into the slot until it locks in place.

If the operating system does not recognize an inserted SD card, remove it and verify that the card is facing the correct way. Insert the card again.

The SD indicator light on the left side of the SD card slot glows when the card is being accessed.

CAUTION If the SD card is not inserted into the slot correctly, any data saved to the card may be lost.

Formatting an optional SD card

To format an SD card, use the Toshiba SD Memory Card Format utility. Click on **Start**, **All Programs**, **Toshiba**, **Utilities**, and then click on **SD Memory Card Format**.

NOTE Multi Media Cards (MMCs) are not supported by this product.

Stopping or removing the SD card after formatting

If you have formatted the SD card drive with the Windows® operating system format (see Formatting an SD Card in the preceding section), you may be unable to stop or eject your card. If this occurs, try restarting the computer.

Using Stand By or Hibernate while using the SD card

It is recommended that you do not select Stand By or Hibernation mode while an SD card is in use. If you do so, your system may not enter Stand By or Hibernation mode, some tasks may become unresponsive, and the operating system may not shut down properly. If this occurs, reset your computer by sliding the power button to the right and holding it for at least four seconds.

Removing an optional SD card

Before removing an SD card from the SD slot, close any applications which utilize the SD card. Click the **Safely Remove Hardware** icon in the tasktray to stop the SD card before removing it. Once the activity indicator light has turned off, you may safely remove the card.

To remove an SD card, press the card inward to release it. The card pops out slightly. The device name disappears only after you have physically removed the card from your computer.

CAUTION Removing the SD card without using the **Safely Remove Hardware** option may result in lost data on your SD card.

Using the Slim SelectBay®

The Slim SelectBay® gives you additional flexibility. By inserting and removing Slim SelectBay modules, you can configure your computer for the task at hand without having to carry unnecessary components with you when you travel. For example, any one of several modules can be used in the Slim SelectBay:

❖ DVD-ROM drive

❖ Multi-function drive

❖ Secondary hard disk drive (HDD)

HINT: Items from this list that did not come with your computer can be purchased separately. See the accessories information packaged with your system or visit accessories.toshiba.com.

Removing a module from the Slim SelectBay®

NOTE   Use caution when lifting or turning your computer. Failure to do so may result in damage to components, such as cables, attached to your computer, or to the computer itself.

1   Do one of the following:

   ❖   Turn off the computer.

   ❖   Leave the computer on and hot swap the module. First, stop the module by clicking the **Safely Remove Hardware** icon on the System tray. After the module is stopped, it is safe to remove it.

2   Slide the Slim SelectBay release toward the front of the computer.

3   Slide the Slim SelectBay out of the computer.
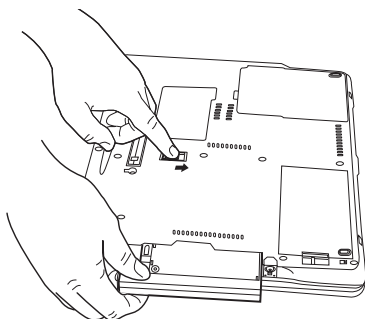
Sample sliding out the module

Inserting a module into the Slim SelectBay®

To install a module into the Slim SelectBay, simply slide the module all the way into the Slim SelectBay until the latch locks into place.

Chapter 5

Toshiba Utilities

Your computer includes several utilities designed to help you to reconfigure your system to best meet your individual needs. Together, these allow you to ascertain certain system details, set additional options, or change default options. These utilities are described in this chapter:

❖ Fn-esse

❖ Hotkey utility

❖ TOSHIBA Assist

❖ The Toshiba Rotation Utility

❖ Cross Menu Utility

❖ TOSHIBA Tablet Access Code Utility

❖ Power Management

❖ Toshiba Hardware Setup

❖ TOSHIBA Zooming Utility

❖ TOSHIBA SD Memory Boot Utility

Fn-esse

The operating system shortcuts and Toshiba's Fn-esse program provide quick ways to open programs, documents, and folders from within any program without using the Start menu.

This section describes how to use the Fn-esse program to quickly access your programs and files.

With Fn-esse, you can assign an Fn key combination to:

❖   Open a Windows® program

❖   Open a file in its associated Windows® program

❖   Display a customized folder of Windows® programs and/ or files from which to choose

Fn-esse also has several keys, known as hot keys, that perform preassigned operations. For more information, see "Hot Keys" on page 228.

You can assign any key that is not associated with a hot key or a keyboard overlay.

Starting Fn-esse

You can access Fn-esse in one of two ways:

❖   Click **Start**, **All Programs**, **Toshiba**, **Utilities** and **Fn-esse**.

❖   Click the Fn-esse icon.

    The Fn-esse keyboard appears.

Sample Fn-esse keyboard

The keys are color-coded as follows:

❖   Available keys are white.

❖   Assigned keys and keys associated with a popup list are shown on the Fn-esse keyboard in the selected color.

❖   Unavailable keys are not shown.

Assigning a key to a program or document

There are two ways to assign a key to open a program or document:

❖   Drag-and-drop

❖   Use the keyboard or pointing device

The method most often used is drag-and-drop.

Using drag-and-drop

To assign a key to a program or document:

1   Start both Fn-esse and Windows® Explorer (or the program supporting drag-and-drop).

2   Resize the Explorer window so that you can see both the Fn-esse keyboard and Explorer at the same time.

3   In the Explorer window, highlight the program or document file you wish to assign to a key.

4 Click and hold the primary button as you drag the highlighted item from Explorer to the key on the Fn-esse keyboard you want to assign to it.

5 Release the primary button.

Fn-esse displays the Add/Edit Command dialog box with the Description, Command Line, and Working Directory fields automatically completed.

6 Click **OK** to close the Add/Edit Command dialog box with your key assignment in place.

The program or document is now associated with the key you just selected. To open the program or document, press Fn plus the appropriate key from within any Windows® program.

Using the keyboard or pointing device

To assign a key to open a program or document:

1 Start Fn-esse.

2 Perform one of the following:

❖ Using the keyboard, press and hold the Fn key, then press the desired assignment key.

❖ Using the pointing device, move the cursor over the desired key and press the secondary button.

The Assignment Type dialog box appears.

Follow the instructions in the "Making a direct key assignment" on page 162 or "Making a popup assignment" on page 162.

162 **Toshiba Utilities**
Fn-esse

Making a direct key assignment

To make a direct key assignment, select **Direct** to display the
Add/Edit Command dialog box, then complete these steps:

1 Enter the Description, Command Line, and Working
Directory for the new Fn-esse key assignment, or click the
Browse button to specify this information.

2 Click **OK**.

Making a popup assignment

To make a popup assignment, select **Popup** to display the
Application Explorer dialog box, then complete these steps:

1 Select the desired folder. The left side of the Application
Explorer window displays the folders in the Programs menu.
The right side lists the programs and documents in the folder.
These are the items that appear in the popup list.

2 To create a popup list with items from various folders, or
to pick only a few items from a folder, create a new folder
containing only the desired programs and documents. If
you are unsure how to do this, refer to your operating
system documentation.

3 Click **OK** to associate the folder with the key you just
selected.

4 To open a popup list showing the items in that folder,
press Fn plus the appropriate key from within any
Windows ® program.

Viewing existing key assignments

To view the existing key assignments, choose **Assignments**
from the Fn-esse keyboard. Fn-esse displays the Function
Key Assignments dialog box. This box lists all the key
assignments and the program or document to which each key
is assigned.

To view items in a popup list, click the **Expand popup lists** check box.

Changing or removing existing key assignments

1   On the Fn-esse keyboard, click the key you wish to change with the secondary button.

    Fn-esse displays the Assignment Type dialog box.

2   To change the key assignment, click **Direct** or **Popup** and continue as if you were creating a new assignment.

3   To remove the key assignment, click **Clear**.

Hotkey utility

The Hotkey utility allows you to receive a confirmation message when you use the hot key combination for Stand By [Fn+F3] and Hibernation [Fn+F4].

To activate the utility:

1   Click **Start**, **All Programs**, **Toshiba**, **Utilities**, then click **Hotkey utility**.

    The Hotkey window appears.
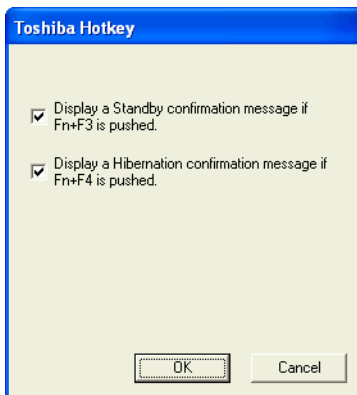
Sample Toshiba Hotkey utility window

2 Put a check mark next to the desired option.

3 Click **OK**.

TOSHIBA Assist

The TOSHIBA Assist provides quick access to computer functions and allows you to customize a range of computer settings.

To access this utility:

1 Click **Start**, **All Programs**, **Toshiba**, **Utilities**, then click **Toshiba Assist**.

The TOSHIBA Assist window appears.
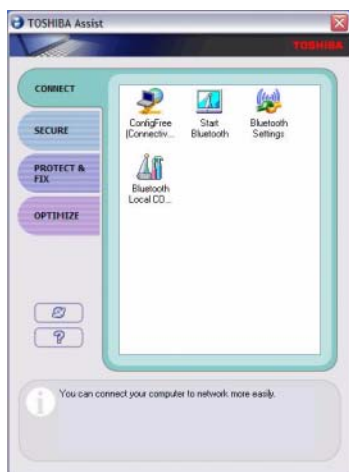
Sample TOSHIBA Assist window

The TOSHIBA Assist offers four categories of options:

❖ Connect

❖ Secure

❖ Protect and Fix

❖ Optimize

Connect

The option in this category is Connectivity Doctor

Secure

The options available in this category are:

❖ Supervisor password

❖ User password

Protect and Fix

The options available in this category are:

❖ PC Diagnostic Tool

❖ HDD Protection

Optimize your computer

The options available in this category are:

❖ Power Management

❖ Mouse

❖ Hotkey assignment (for detailed information, see "Hot Keys" on page 228)

❖ Toshiba Hardware Setting

❖ Tablet and Pen Settings

❖ Toshiba Mobile Extension

❖ SD Memory Card Format Utility

❖ Accessibility

❖ Toshiba Zooming Utility

❖ Toshiba Button Controls

❖ Toshiba CD/DVD Drive Acoustic Silencer

❖ Toshiba Rotation Utility

Power Management

NOTE	Toshiba recommends that you use the Toshiba Power Management Utility to change system power settings.

The Power Management feature enables you to control your computer's power usage, regardless of the source, and use the many preset power modes, or create one yourself.

To access Power Management through the TOSHIBA Assist, click the **Power Management** icon.

The TOSHIBA Power Saver Properties window appears.

Sample TOSHIBA Power Saver Properties window

The Power Save Modes tab shows the power usage for both AC power and battery power.

You can either use one of the preset profiles or create and use your own customized mode. The preset profiles cannot be deleted.

By changing the options that appear in the Toshiba Power Saver Properties window and clicking **OK**, you can

reconfigure that function. Any options that you change become effective when you click either **OK** or **Apply**.

Power Usage Profiles

The preset profiles are:

❖ Long Life

❖ Normal

❖ High Power

❖ DVD Playback

❖ Presentation

❖ Full Power

Although you can change the properties for any of these modes, this is not recommended. If you need a customized mode, create a new mode with the properties you require.

Creating a new power mode

1 Highlight one of the preset profiles.

2 Click **Copy**.

3 A new profile appears with the title "Copy *of Name*" where *Name* is the title of the profile you copied.

4 To rename the profile, click the **Property** button.

5 Type the name for your new profile, and then click **OK**.

Customizing a power mode

1 Highlight the profile on the Profiles window.

2 Make the desired changes to settings on the Basic Setup page and the Setup Action page.

3 Click **Apply**.

4 Click **OK**.

Toshiba Hardware Setup

Toshiba Hardware Setup is the Toshiba configuration management tool. To access it:

In the **TOSHIBA Assist**, click the **Toshiba Hardware Settings** icon.
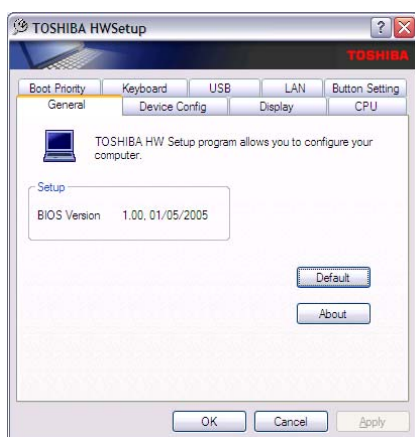
Sample TOSHIBA HWSetup window

The TOSHIBA HWSetup window appears with tabs for the following:

❖ General — Allows you to view the current BIOS version or to change settings back to default.

❖ Device Config—Shows the Device configuration options.

❖ Display—Allows you to change various default settings for the built-in LCD display and external video displays.

❖ CPU—Allows you to set the "CPU Frequency Mode" to one of "Dynamically Switchable," "Always High," or "Always Low."

❖ Boot Priority — Allows you to set the order of priority by which the machine searches for a device to boot from; in addition to changing the network boot protocol.

You can also manually choose the boot-up sequence by pressing the power button, then quickly pressing the right or left arrow keys.

Select the boot device by pressing the right or left arrow keys, then pressing the Enter key.

NOTE Since the system is a quick-booting system, you must press the arrow keys immediately after pressing the power button.

❖ Keyboard—Allows you to enable or disable Wake up from the keyboard. This function only applies to the built-in keyboard from Stand By mode.

❖ USB—Allows you to enable or disable USB Legacy Emulation.

❖ LAN — Lets you enable or disable the Wake-up on LAN feature and enable or disable the built-in LAN.

❖ Button Setting—Allows you to set the speed, either **Fast** or **Normal,** for resuming from Standby mode.

By changing any of the options that appear in the dialog boxes and clicking **Apply**, you can reconfigure that function. Any options that you change will become default settings when you restart your system.

TOSHIBA Mobile Extension

To adjust the settings for docking or using the Slim SelectBay®, use the TOSHIBA Mobile Extension Service Configuration.

To use the TOSHIBA Mobile Extension Service Configuration:

1   Click **Start**, then **Control Panel**, then **Performance and Maintenance**.

2   Click **TOSHIBA Mobile Extension**.

The TOSHIBA Mobile Extension Service Configuration dialog box appears.

3   Under the **Mobile Extension Service** tab, you can select behaviors to enable or disable, like Warm Undock Service and Notification Messages, by checking or unchecking the appropriate box.
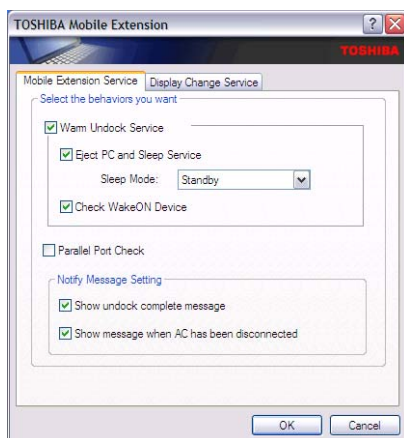
Sample TOSHIBA Mobile Extension Service tab options

4   Under the **Display Change Service** tab, you can set the default display configuration you wish to use when docking the system to the optional Advanced Port Replicator III.
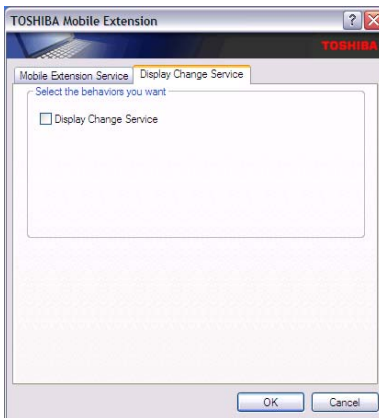
Sample Display Change Service tab options

TOSHIBA Accessibility

The TOSHIBA Accessibility utility allows you to use the Fn key to create a hot key combination with one of the function keys without pressing the two keys simultaneously as is usually required.

Using Accessibility enables you to make the Fn key a *sticky key*, meaning you can press it once, release it and then press a function key to activate the hot key function.

To open Accessibility:

1 Click **Start**, then click **All Programs**.

2 Select **Toshiba**, **Utilities**, **Accessibility**.

The TOSHIBA Accessibility window appears.

3 Check the **Use Fn-StickyKey** box.

4 Put a check mark next to the desired option.

5 Click **Apply**, then click **OK**.

The function is now active.

TOSHIBA CD/DVD Drive Acoustic Silencer
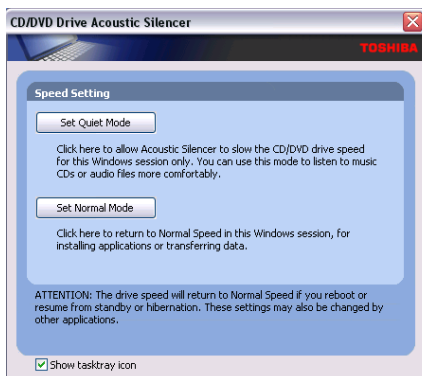
Sample TOSHIBA CD/DVD Drive Acoustic Silencer screen

This utility can slow the speed of your optical drive to make it run more quietly. You can use this utility to make listening to Music CDs more enjoyable.

NOTE	When you change the CD/DVD drive to "Quiet" mode, the setting is only valid for the current Windows session. If you shut down, restart, log off, or resume from hibernation, the setting will revert back to Normal speed. The setting can also be changed by CD burning software or other applications that can set the drive speed.

To change the setting, open the Acoustic Silencer by double-clicking the tasktray icon.

1 Click **Set Quiet Mode** to make the drive run more slowly and quietly, for listening to Music CDs or Audio files on a CD.

2 Click **Set Normal Mode** to run the drive at normal speed, for transferring data.

Toshiba Button Controls Utility

This utility allows the user to change the functionality of the Microsoft® OneNote button on the right side of the computer, by choosing the application or action from a list available on the utility screen.
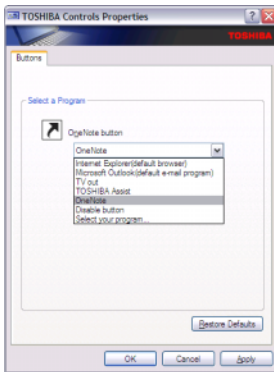
Sample Toshiba Controls Properties screen

PC Diagnostic Tool

This utility can help diagnose problems with devices in your computer. Refer to the online help documentation within the application for any additional help. Start the utility, by clicking **Start**, **All Programs**, **Toshiba**, **Utilities**, and then **PC Diagnostic Tool**.
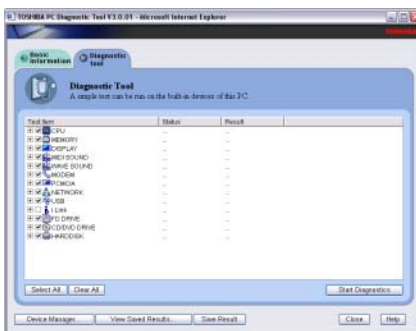
Sample PC Diagnostic Tool screen

HDD Protection Utility

Your computer comes with an application which can park the Hard Disk Drive whenever motion is detected on the computer. This utility is used to either disable or set the sensitivity of this application.
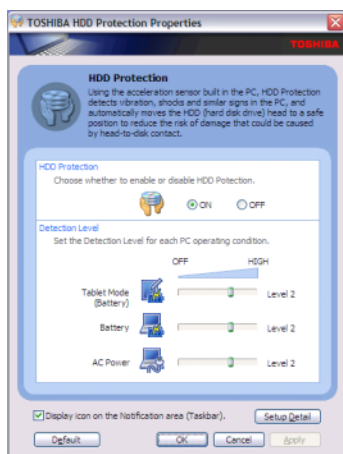
Sample HDD Projection screen

The Toshiba Rotation Utility

This utility allows you to change the default setting of the display format (primary portrait) to three other display formats:

❖ Primary landscape

❖ Secondary portrait

❖ Secondary landscape

To change the display format:

1 Click **Start**, **All Programs**, **Toshiba**, **Tablet PC**, and then click **Rotation Utility**.

The Toshiba Rotation Utility screen appears:
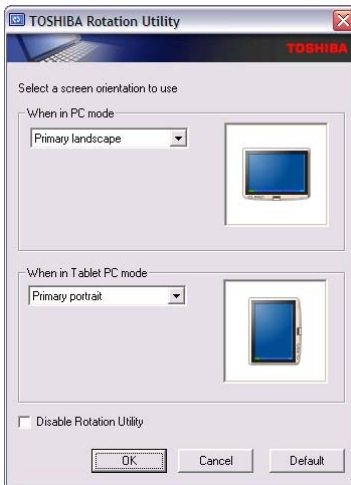
Sample Toshiba Rotation Utility screen

2 Select a new display format for either PC mode or Tablet PC mode.

3 Click **OK**.

NOTE Toshiba recommends that you use the Toshiba Rotation Utility to change screen rotation options and settings for the tablet feature Tablet and Pen Settings.

NOTE The Escape key, located between the Cross-Functional button and the Windows Security button on the front of the display can "lock" the display in its current display setting - landscape or portrait.

The Tablet and Pen Settings window allows you to set various options for using the tablet and pen.

To access Tablet and Pen Settings:

From the **TOSHIBA Assist**, click the **Tablet and Pen Settings** icon.
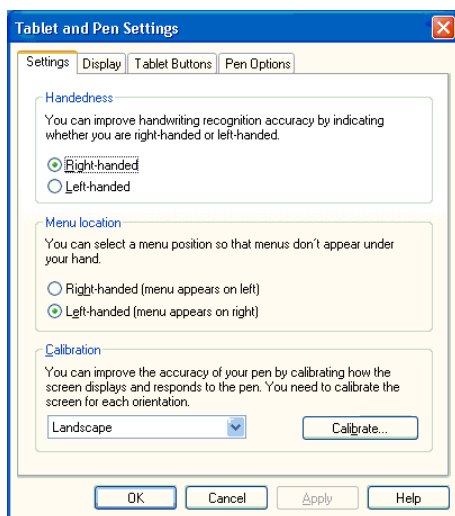
Tablet and Pen Settings window

❖ The **Settings** tab allows you to specify whether you are left handed or right handed, and the menu location.

❖ While the **Display** tab can be used to change the screen's orientation and adjust screen brightness, it is recommended that you use the Toshiba Rotation Utility (see page 174) to change the screen's orientation, and the Toshiba Power Saver Utility (click its icon in the System Tray) to adjust screen brightness.

❖ The **Tablet Buttons** tab allows you to specify an action when a display system button is pressed. After making your selections, click **Change**, chose an **Action**, and then click **OK**.
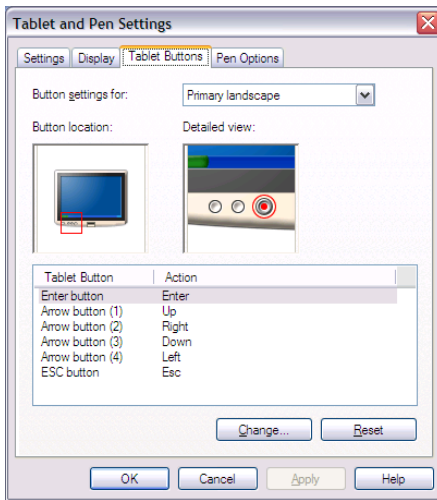
Tablet and Pen Settings Tablet Buttons tab

❖ The **Pen Options** tab allows you to set various pen options.

After making your selections on the Tablet and Pen Settings window, click **OK**.

Cross Menu Utility

The Cross Menu Utility allows you to make Hot Key assignments to launch applications, access Toshiba utilities, or create your own custom menus.

To start the Cross Menu Utility:

1 Press and hold the Cross-Functional button for two seconds until the following screen displays.
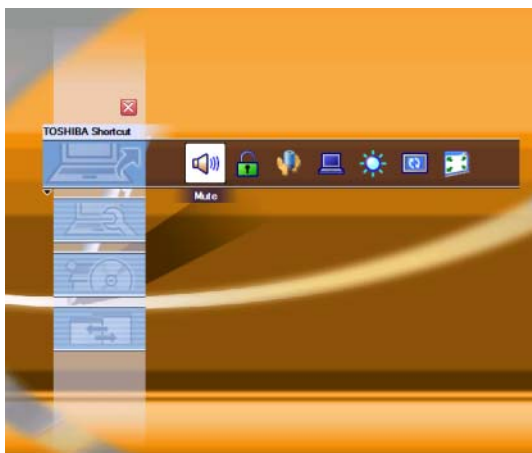
Sample Cross Menu Utility screen

2   Move the Cross-Functional button up or down to select a menu.

3   To select an item in a menu, move the Cross-Functional button left or right until the icon is highlighted, then press the Cross-Functional button.

Creating a New Menu

NOTE   You can add up to five menus.

To create a new menu:

1   Click **Start**, **All Programs**, **Toshiba**, **Tablet PC**, and then **Cross Menu**.

The Cross Menu Setting window appears.
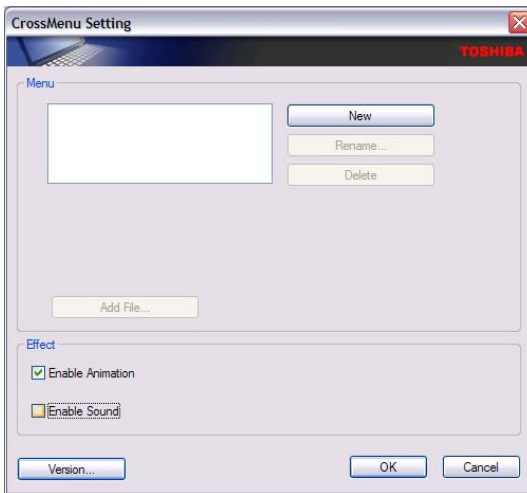
Sample Cross Menu Setting window

2 Click **New**.

3 Click **Add File**.

4 Browse for the application(s) you want to add to the menu and click Open.

5 When you have finished adding applications to the menu, click **OK**.

TOSHIBA Tablet Access Code Utility

This utility allows you to create and register an access code controlling who can log onto Windows.

NOTE   When creating and registering an access code, you can choose any character or symbol you want. The more unique or complex the code that you create, the more secure. However, be sure to create a code that is easily remembered.

To access the utility:

1   Click **Start**, **All Programs**, **Toshiba**, **Tablet PC**, and then **Tablet Access Code Logon Utility**.

The Tablet Access Code Logon Utility screen appears.
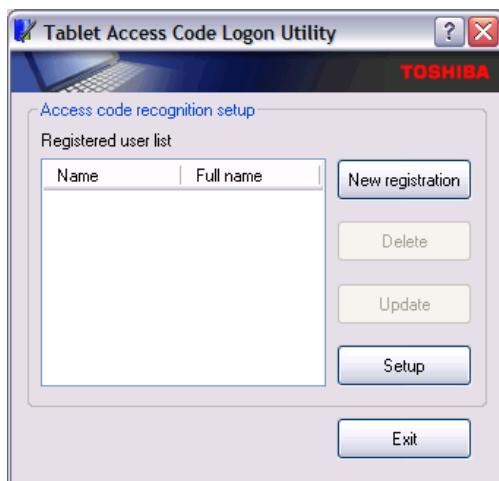
Sample TOSHIBA Tablet Access Code Logon Utility screen

2   To create an access code, click **New Registration**.

TOSHIBA Zooming Utility

This utility allows you to zoom in and zoom out of applications. You can make this utility work on all applications or specific applications. These are the options available to you:

❖   All applications

❖   All applications with icons on the desktop

❖   Microsoft® Internet Explorer, Microsoft® Office, Windows® Media Player, and Adobe® Reader (you can select one or more of these programs)

To access the utility, click **Start**, **All Programs**, **Toshiba**, **Utilities**, and then **TOSHIBA Zooming Utility**.

The TOSHIBA Zooming Utility screen appears.
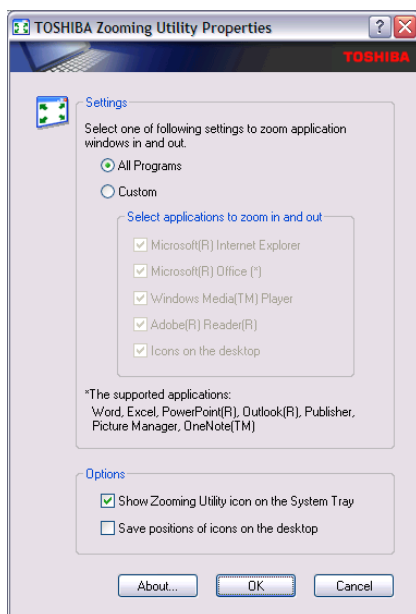
Sample TOSHIBA Zooming Utility screen

For more information about how to use the TOSHIBA Zooming Utility, right click on the ⊡ icon in the taskbar and click on Help.

TOSHIBA SD Memory Boot Utility

In order to boot from an SD card, you must make the card SD card bootable. To do so, run the Toshiba SD Memory Boot Utility.

The TOSHIBA SD Memory Boot Utility screen appears.
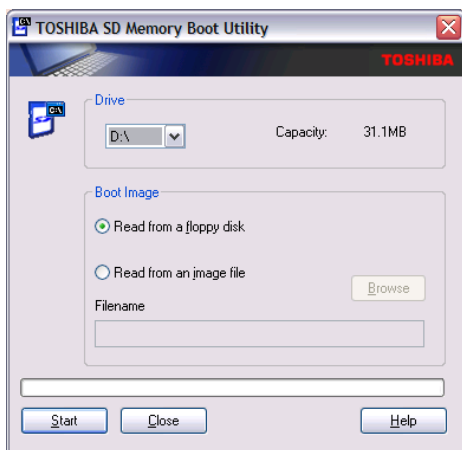
Sample TOSHIBA SD Memory Boot Utility screen

1   Attach a USB floppy drive to your computer, and insert a bootable floppy disk.

2   Insert the SD card.

NOTE   Be sure to back up your data to external media before performing this procedure as data on the drive may be lost.

3   Click **Start**, **All Programs**, **Toshiba**, **Utilities**, and then **SD Memory Boot Utility**.

4   Select the drive where the SD is located.

5   Select the **From Floppy image** option.

6   Click the **Start** menu.

NOTE   To create a bootable SD with the From image file option, you need a third-party application.

Chapter 6

Keeping Your Files Safe

You may have files on your computer that you want to keep private. Your computer comes with several options that can help you keep your computer and files safe from unwanted intrusion.

This chapter describes the security options for your notebook computer.

Using passwords in the Windows® operating system

Setting a password lets you walk away from your computer, secure in the knowledge that nobody can access your files. When you set a password, you must enter the password before you can work on your computer again.

Toshiba supports the following types of passwords on your computer:

❖ A power-on password—Prevents unauthorized users from starting or restarting the computer.

❖ An instant password—Secures your open programs and files when you need to leave the computer temporarily.

❖ An HDD password— A hard disk drive password that protects your data by requiring a password when you try to access the hard disk, whether it is in your computer or in another system. You can set a hard disk drive user password and/or a hard disk drive master password.

CAUTION If you choose to set a hard disk drive user password, we strongly recommend that you set a hard disk drive master password as well.

If you set a hard disk drive user password and later forget the password, YOU WILL NEVER BE ABLE TO ACCESS YOUR HARD DISK AGAIN unless you have set a hard disk drive master password and you remember that password.

Toshiba is not responsible for any losses that may occur to you, your organization or others as a result of the inability to access the hard drive.

User-level passwords

The user-level password is the basic level of password security. You can use it as both a power-on password and an instant password. For most users, this is all the password security you will need.

CAUTION Make sure you use a password you can remember easily. If you forget the User and Supervisor passwords, you will not be able to use the computer. Contact a TOSHIBA Authorized Service Provider for assistance.

Setting a user-level password

To set (register) a user-level password:

1 Click **Start**, **All Programs**, **Toshiba**, **Utilities**, and then click **Password Utility**.

2 Open the **User Password** tab.

3 Click **Set**.

A Set User Password dialog box appears.

4 Type in the password.

5 Reenter the password and click **Set**.

A message box appears asking if you want to save the password on removable media.

6 If you want to save the password, click **OK** and then follow the on-screen instructions. If you do not want to save the password, click **Cancel**.

7 Click **OK** on the Toshiba Password Utility window.

Your user password is now in effect. Use it when you start the computer (power-on password).

Disabling the user-level password

To delete a user-level password:

1 Click **Start**, **All Programs**, **Toshiba**, **Utilities**, and then click **Password Utilities**.

2 Open the **User Password** tab.

3 Click **Delete**.

A Delete User Password dialog box appears.

4 Type in the password and click **Delete**.

5 Click **OK** at the bottom of the Toshiba Password Utility window.

The user password is disabled.

Using the power-on (user-level) password

Whenever you start your computer with a power-on (user-level) password in effect, the computer prompts you to enter the password before it goes through its normal startup procedure.

When your computer prompts you to enter your password, type it in and press Enter. If you enter the password correctly, the computer continues with its normal startup procedure. If you enter an incorrect password, the computer beeps. After three incorrect attempts, the system turns off automatically.

Using the instant (user-level) password

An instant password secures your system with a single keystroke. Use this feature when you need to leave your desk for a few minutes and do not want to turn off the computer.

To use an instant password, press Fn and F1 simultaneously. Pressing this hot key freezes the keyboard and TouchPad and blanks the screen. An instant password has no effect on an optional serial mouse or trackball.

If you have not registered a user-level password, press Enter to unlock your system.

If you have registered a user-level password, press Enter, type your password and press Enter. If you enter the password correctly, the computer returns to where it was when you pressed the hot key.

Using the HDD password

Your computer comes with a System Setup utility that lets you set two types of hard disk drive passwords—user and master. These passwords protect your primary and secondary hard disks as follows:

❖ Setting a hard disk drive user password prevents an unauthorized user from accessing your hard disk, even if

it is removed and installed on another computer. This
password does not encrypt data on the hard disk.

❖ Setting a hard disk drive master password lets you bypass
the hard disk drive user password and access your hard
disk, in case you forget the hard disk drive user password.
If you choose to set a hard disk drive master password,
you should set it before you set a hard disk drive user
password.

HINT: The hard disk drive shipped with your computer may not
support the master password feature. When you attempt to set
master password protection, your computer may alert you that
this feature is not supported by your drive. If this happens and
you want to establish a master password for your hard disk,
contact your network administrator for instructions.

Setting a hard disk drive user only password in System Setup

CAUTION If you choose to set a hard disk drive user password, we
strongly recommend that you set a hard disk drive master
password as well.

If you set a hard disk drive user password and later forget the
password, YOU WILL NEVER BE ABLE TO ACCESS YOUR
HARD DISK AGAIN, unless you have set a hard disk drive
master password.

To register a user only password in System Setup:

1 Click **Start**, then click **Shutdown**, and click **OK**.

The computer shuts down.

2 Hold down the Esc key and press and hold the power
button until the on/off light on the system indicator panel

illuminates (green) for approximately one second. When the following message appears on the screen: "Check system, Then press [F1] key," press F1.

The System Setup screen appears.

3 Press H to move to the **HDD PASSWORD** section on the screen.

4 Press the spacebar to select **User Only** password mode.

5 Press the down arrow key to move to the **User Password** section.

6 Press the spacebar, then type a password of 1 to 16 characters and press Enter. You may use any combination of letters and numbers in your password.

7 When System Setup prompts you to verify the password, type it again and press Enter.

If the two passwords match, System Setup displays: Registered. If the two passwords do not match, an error message appears. Repeat steps 6 and 7 to enter the password again.

8 Press End to save the change.

9 When System Setup prompts you to confirm your change, Press Y.

Deleting or changing a hard disk drive user only password in System Setup

To delete or change a user only password in System Setup:

1 Click **Start**, then click **Shutdown**, and click **OK**.

The computer shuts down.

2 Hold down the Esc key and press and hold the power button until the on/off light on the system indicator panel illuminates (green) for approximately one second. When

the following message appears on the screen: "Check system, Then press [F1] key," press F1.

The System Setup screen appears.

3 Press H to move to the **HDD PASSWORD** section on the screen.

4 Press the spacebar, then type in your user password and press Enter.

5 If you want to change the password, input the new password.

6 When System Setup prompts you to verify the password, type it again and press Enter.

If the two passwords match, System Setup displays: Registered. If the two passwords do not match, an error message appears. Repeat steps 5 and 6 to enter the password again.

7 If you want to delete the user password, leave the space blank and press Enter twice. System Setup displays: Not Registered.

8 Press End to save the change.

9 When System Setup prompts you to confirm your change, Press Y.

Setting a hard disk drive master and user password in System Setup

CAUTION Make sure you choose a hard disk drive master password you can remember easily. If you set a hard disk drive user password and later forget the password or lose your password diskette, you will need to enter the hard disk drive master password in order to access your hard disk.

HINT: The hard disk drive shipped with your computer may not support the master password feature. When you attempt to set master password protection, your computer may alert you that this feature is not supported by your drive. If this happens and you want to establish a master password for your hard disk, contact your network administrator for instructions.To register master and user passwords in System Setup:

1 Click **Start**, then click **Shutdown**, and click **OK**.

The computer shuts down.

2 Hold down the Esc key and press and hold the power button until the on/off light on the system indicator panel illuminates (green) for approximately one second. When the following message appears on the screen: "Check system, Then press [F1] key," press F1.

The System Setup screen appears.

3 Press H to move to the **HDD PASSWORD** section on the screen.

4 Press the spacebar to select **Master + User** password mode.

5 Press the down arrow key to move to the Master Password section. You must register a Master Password first.

6 Press the spacebar, then type a password of 1 to 16 characters and press Enter. You may use any combination of letters and numbers in your password.

7 When System Setup prompts you to verify the password, type it again and press Enter.

If the two passwords match, System Setup displays: Registered for both User and Master passwords. If the two passwords do not match, an error message appears. Repeat steps 6 and 7 to enter the password again.

8 Press End to save the change.

9 When System Setup prompts you to confirm your change, Press Y.

Changing the master and user passwords in System Setup

To change the master and user passwords in System Setup:

1 Click **Start**, then click **Shutdown**, and click **OK**.

The computer shuts down.

2 Hold down the Esc key and press and hold the power button until the on/off light on the system indicator panel illuminates (green) for approximately one second. When the following message appears on the screen: "Check system, Then press [F1] key," press F1.

The System Setup screen appears.

3 Press H to move to the **HDD PASSWORD** section on the screen.

4 Use the up and down arrow keys to select the password you wish to change.

5 Press the spacebar, then enter the appropriate password and press Enter.

6 If you want to change your password, input the new password.

7 When System Setup prompts you to verify the password, type it again and press Enter.

If the two passwords match, System Setup displays: Registered. Note that you can only change (not delete) the user password if a master password is registered.

8 Press End to save the change.

9 When System Setup prompts you to confirm your change, Press Y.

Deleting the hard disk drive master and user passwords in the System Setup

HINT: You must delete the hard disk drive master password before you can delete the hard disk drive user password.

To delete the master and user passwords in System Setup:

1 Click **Start**, then click **Shutdown**, and click **OK**.

The computer shuts down.

2 Hold down the Esc key and press and hold the power button until the on/off light on the system indicator panel illuminates (green) for approximately one second. When the following message appears on the screen: "Check system, Then press [F1] key," press F1.

The System Setup screen appears.

3 Press H to move to the **HDD PASSWORD** section on the screen.

4 Select the Master Password using the down arrow key.

5 Press the spacebar, the enter the master password and press Enter.

6 If you want to delete the master password, leave the space blank and press Enter twice.

System Setup displays: Not Registered. The user password will also display as Not Registered.

7 Press End to save the change.

8 When System Setup prompts you to confirm your change, Press Y.

Chapter 7

If Something Goes Wrong

Some problems you may encounter when using your computer are relatively easy to identify and solve. Others may require help from your network administrator or the manufacturer of a software program.

This chapter aims to help you solve many problems by yourself. It covers the problems you are most likely to encounter.

If all else fails, contact Toshiba. You will find information on Toshiba's support services at the end of this chapter.

Problems that are easy to fix

Your program stops responding.

If you are working with a program that suddenly freezes all operations, chances are the program has stopped responding. You can exit the failed program without shutting down the operating system or closing other programs.

To close a program that has stopped responding:

1   Press Ctrl, Alt, and Del simultaneously (once).

The Windows Task Manager window appears.

2 Click the **Applications** tab.

If a program has stopped responding, the words "not responding" appear beside its name in the list.

3 Select the program you want to close, then click **End Task**.

Closing the failed program should allow you to continue working. If it does not, continue with the next step.

4 Close the remaining programs one by one by selecting the program name, then **End Task**.

To power off your computer, do one of the following:

If you are not connected to a domain server:

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.

2 Click **Turn Off**.

The computer turns off.

If you are connected to a domain server:

1 Click the **Start** button, then **Shut down**.

The Shut Down window appears.

2 Select **Shut down** from the drop-down list.

3 Click **OK**.

The computer shuts down completely.

Your program performs an illegal operation.

If you receive the message, "Your program has performed an illegal operation," you should wait to see if it happens again. If it does, record the details of the message and consult the software manufacturer.

To record the details:

1 Click the **Details** button and select the text the operating system displays.

The Details button displays information that the software manufacturer needs to help you solve your problem.

2   Press Ctrl and c simultaneously to copy the text to the clipboard.

3   Open Notepad (click **Start**, point to **All Programs**, then point to **Accessories** and click **Notepad**).

4   Press Ctrl and v simultaneously to paste the details into Notepad.

5   Add a paragraph break and type some notes describing what you were doing when you received the message, and how the error can be reproduced.

6   Save the file and refer to it when you contact the software manufacturer.

Problems when you turn on the computer

These problems may occur when you turn on the power.

The computer will not start.

Make sure you attached the AC adapter and power cord/cable properly or installed a charged battery.

Press and hold down the power button for at least 10 seconds.

If you are using the AC adapter, check that the wall outlet is working by plugging in another device, such as a lamp.

Verify that the computer is on by looking at the On/off indicator. If the indicator is glowing, the computer is on.

If you are using an AC adapter, verify that the computer is receiving power from the external power source by looking at the AC power light. If the indicator is glowing, the computer is connected to a live external power source.

The computer starts but, when you press a key, nothing happens.

Verify that the active program accepts text input. Try clicking your mouse on an area where you can type text, and try typing again.

Your computer may be in Stand By mode and have a software or resource conflict. When this happens, turning the power on returns you to the problem instead of restarting the system. To clear the condition, press Ctrl, Alt, and Del simultaneously.

Clearing the condition may get the computer running, but it will not solve a resource conflict. Read the documentation that came with the conflicting device and "Resolving a hardware conflict" on page 200.

The computer is not accessing the hard disk or the optional external diskette drive.

Your computer normally loads the operating system from the hard disk. If you have a hard disk problem, you will not be able to start the computer. Insert a system diskette into the optional external diskette drive and press F12 when the machine starts and use the arrow keys to select the boot-up device.

The computer displays the WARNING RESUME FAILURE **message.**

The computer was placed in Stand By mode and the battery has discharged. Data stored in the computer's memory has been lost. However, data stored in the computer's hard drive may not be affected.

Always save your data even when you are using Stand By. If your battery fully discharges, information that has not been saved will be lost. Your computer can be configured to warn you when the battery is running low, see "What to do when the battery runs low" on page 116.

If you are running on battery power, it is recommended that you do not leave the computer in Stand By mode for long periods of time.

To charge the battery, leave the computer plugged into a live wall outlet for several hours. For more information, see "Charging the batteries" on page 112.

The computer displays the Non-System disk **or** disk error **message.**

Make sure there is no diskette in the optional external diskette drive. If there is one, remove it and press any key to continue. If pressing any key does not work, press Ctrl, Alt, and Del to restart the computer. For more information, see "The computer is not accessing the hard disk or the optional external diskette drive." on page 196.

The Windows® operating system is not working

Once you are familiar with the desktop and used to the way the operating system responds to your work routine, you can easily detect if the operating system is not working correctly. For example:

❖ The operating system fails to start after the Starting Windows XP Tablet PC Edition message appears.

❖ The operating system takes a long time to start.

❖ The operating system responds differently from the normal routine.

❖ The screen does not look right.

Unless a hardware device has failed, problems usually occur when you change the system in some way such as installing a new program or adding a device.

If you experience any of these problems, use the options in the Startup menu to fix the problem.

Using Startup options to fix problems

If the operating system fails to start properly, you may have to change your system's configuration or verify the startup procedure to fix the problem. To do this, use the options in the Startup menu.

To open the Startup menu:

1 Restart your computer.

2 Press F8 when your computer starts and before Windows starts loading.

The Windows® Advanced Options menu displays these options:

❖ Safe Mode

❖ Safe Mode (with Networking)

❖ Safe Mode (with Command Prompt)

❖ Enable Boot Logging

❖ Enable VGA Mode

❖ Last known good configuration (your most recent settings that worked)

❖ Directory Services Restore Mode (Windows® domain controllers only)

❖ Debugging Mode

❖ Start Windows® normally

❖ Reboot

❖ Return to OS Choices (menu)

See your Windows® documentation for further explanation.

NOTE   If your computer is connected to a network, the Startup menu may display different versions of Safe mode.

Internet problems

My Internet connection is very slow.

Many factors contribute to the speed with which you can surf the Internet. They include: modem speed, telephone line conditions, time of day (when everyone else is surfing, your access can be slow) and popularity of the site. If accessing a particular site is very slow, try later.

My browser can not find the URL address I typed in.

Make sure you separated the domain names of the address with the forward slash (/). Check the spelling of each name and the syntax of the address carefully. A single incorrect letter or missed character, comma instead of period ("dot") or other mistake makes it impossible for your browser to locate the site.

My browser can not find a site I bookmarked.

The World Wide Web is constantly changing. A site you bookmarked yesterday may not be available today or its server may be down for temporary repair. Try again later.

The Windows® XP operating system can help you

If the operating system has started properly, but you still have a problem using your computer, the online Help can assist you in troubleshooting the problem.

To access Windows® XP Tablet PC Edition Help and Support:

1   Click **Start**, then click **Help and Support**.

     The Help and Support window appears.

2   Then do one or both of the following:

     ❖   In the search field, type in the topic for which you need help and follow the on-screen instructions.

     ❖   Click a problem you would like help with from the listings and follow the on-screen instructions.

You can connect to Support Online by clicking **Support** from the menu or by going to pcsupport.toshiba.com.

Resolving a hardware conflict

If you receive an error message telling you there is a device driver conflict or a general hardware problem, try using Windows® Help and Support to troubleshoot the problem first.

For help on hardware conflicts:

1 Click Start, then click **Help and Support**.

2 Click the **Hardware** link in the window's left pane.

   A list of category links appear.

3 Click the **Fixing a hardware problem** link.

4 Choose from specific topics and follow the steps.

If there is still a problem, the operating system should display a message that explains what the conflict is.

A plan of action

The smooth operation of the system depends on the interaction of all devices, programs, and features. If the system or one of its attached devices is not working, resolving the problem can be time-consuming and frustrating.

The recommended procedure for getting multiple devices to work together is to add and set up one device at a time. After you add each device, test it to make sure it and all previously connected devices work.

The device most recently connected to the system is the one most likely to be causing a hardware conflict.

Resolving hardware conflicts on your own

Computer components need resources to accomplish a task. A device, such as a disk drive or a modem, needs a channel to the computer's Central Processing Unit (CPU). It also needs a direct channel to the computer's memory to store information as it works. These channels of communication are commonly referred to as system resources.

Interrupt Request Channel

The channel to the CPU is called an Interrupt Request (IRQ) because it interrupts what the processor is doing and requests some of the processor's time. If two or more devices use the same IRQ, the processor does not know which device is asking for attention. This causes a hardware conflict.

Direct Memory Access

Similarly, the data required by the device is stored in a specific place or address in memory called the Direct Memory Access (DMA). The DMA provides a dedicated channel for adapter cards to bypass the microprocessor and access memory directly. If two or more devices use the same DMA, the data required by one device overwrites the data required by the other, causing a hardware conflict.

Plug and Play

With Plug and Play and the operating system, avoiding hardware conflicts is easy. Plug and Play is a computer standard that helps the system BIOS (basic input/output system) and the operating system to automatically assign system resources to Plug and Play-compliant devices. In theory, if every device connected to the computer is Plug and Play-compliant, no two devices will compete for the same system resources. Plug in the device and turn on your computer. The operating system is automatically set up to accommodate the new device.

If you install an older (legacy) device that the operating system cannot recognize, the operating system may have difficulty assigning resources to it. As a result, a hardware conflict can occur.

Resolving conflicts

There are several things you can do to resolve hardware conflicts:

❖ Get the most recent drivers from the manufacturer.

❖ Disable the device.

   For an older device, remove it from the computer.

❖ Disable another system component and use its resources for the new device, see "Fixing a problem with Device Manager" on page 202.

❖ Reconfigure the device so that its requirements do not conflict. Refer to the device's documentation for instructions about changing settings on the device.

Fixing a problem with Device Manager

Device Manager provides a way to check and change the configuration of a device.

CAUTION Changing the default settings using Device Manager can cause other conflicts that make one or more devices unusable. Device Manager is a configuration tool for advanced users who understand configuration parameters and the ramifications of changing them.

Disabling a device

1 Open the **Start** menu, and click **Control Panel**.

1 **Click the Administrative Tools** icon.

2 Double-click **Computer Management**, then click **Device Manager**.

3 Select the specific device from the device category. To expand a device category, double-click the category.

4 In the toolbar, look to the far right for an icon of a monitor with a strike mark through a circle on the front. This is the disable feature.

5 Click the icon.

You are given the option of disabling the device.

6 Click **Yes** to disable the device or **No** to cancel.

Checking device properties

Device Manager provides a way to view the properties of a device. Properties include the name of the manufacturer, the type of device, the drivers installed, and the system resources assigned to the device.

To check a device's properties:

1 Open the **Start** menu, and click **Control Panel**.

2 **Click** the **Administrative Tools** icon.

3 Double-click **Computer Management**, then click **Device Manager**.

4 To view the device(s) installed, double-click the device type.

5 To view the properties, double-click the device.

The operating system displays the Device Properties dialog box, which provides an array of tabs. They may include:

❖ The **General** tab, which provides basic information about the device.

❖ The **Resource** tab, which lists resources assigned to the monitor, optional external DVD-ROM, optional external diskette disk drive, and other power-using functions. This tab does not appear if the device is not using resources.

❖ The **Driver** tab, which displays the drivers being used by the device.

the tabs that appear in the dialog box vary from one device to another. A Troubleshooting button is also present.

6 Click **Troubleshoot...**

A Help and Support window for that device appears.

For more information about Device Manager, refer to Windows® XP Tablet PC Edition online help.

Memory problems

Incorrectly connected or faulty memory modules may cause errors that seem to be device-related. It is worthwhile checking for these first:

1 Click **Start**, **Turn off computer**.

2 Click **Turn Off**.

The operating system shuts down and turns off the computer automatically.

3 Remove the memory module, following the instructions in "Removing a memory module" on page 64.

4 Reinstall the memory module, following the instructions in "Installing a memory module" on page 60, and making sure the module is seated properly.

5 Check for the error again.

6 If the error recurs, remove the memory module entirely and check for the error again.

If removing the memory module eliminates the error, the memory module may be faulty. If the error recurs without the memory module installed, the error is not caused by the memory module.

TECHNICAL NOTE: You must have at least one memory module installed for the computer to work.

Power and the batteries

Your computer receives its power through the AC adapter and power cord/cable or from the system batteries (battery, optional high-capacity battery and real-time clock (RTC) battery). Power problems are interrelated. For example, a faulty AC adapter or power cord/cable will neither power the computer nor recharge the batteries.

Here are some typical problems and how to solve them:

The AC power light does not come on when you plug in the AC adapter and power cord/cable.

Make sure the AC adapter and power cord/cable are firmly plugged into both the wall outlet and the computer.

If the AC power light still does not come on, check that the wall outlet is working properly by plugging in a lamp or other appliance.

The AC adapter and power cord/cable work correctly, but the battery will not charge.

The battery does not charge while the computer is consuming full power. Try turning off the computer.

The battery may not be inserted correctly in the computer. Turn off the computer, remove the battery, clean the contacts

with a soft dry cloth (if necessary) and replace the battery. See "Removing the battery from the computer" on page 121.

The battery may be too hot or too cold to charge properly. If you think this is the probable cause, let the battery reach room temperature and try again.

If the battery has completely discharged, it will not begin charging immediately. Leave the AC adapter and power cord/cable connected, wait 20 minutes and see if the battery is charging.

If the battery light is glowing after 20 minutes, let the computer continue charging the battery for at least another 20 minutes before you turn on the computer.

If the battery light does not glow after 20 minutes, the battery may have reached the end of its useful life. Try replacing it.

The battery appears not to power the computer for as long as it usually does.

If you frequently recharge a partially charged battery, it may not charge fully. Let the battery discharge completely, then try charging it again.

Check the power options using the Power Management utility. Have you added a device, such as a PC Card or memory module, that takes its power from the battery? Is your software using the hard disk more? Is the display power set to turn off automatically? Was the battery fully charged to begin with? All these conditions affect how long the charge lasts.

After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries. To purchase a new battery pack, see your accessories information that shipped with your computer, or visit the Toshiba Web site at accessories.toshiba.com. Refer to this site often to stay current on the most recent software and hardware options for your computer, and for other product information,

For more information on maximizing battery power, see "Charging the batteries" on page 112.

Keyboard problems

If, when you type, strange things happen or nothing happens, the problem may be related to the keyboard itself.

The keyboard produces unexpected characters.

A keypad overlay may be on. If the numlock light or cursor control mode light is on, press Fn and F10 simultaneously to turn off the cursor control mode light or Fn and F11 simultaneously to turn off the numlock light.

If the problem occurs when both the keypad overlays are off, make sure the software you are using is not remapping the keyboard. Refer to the software documentation and check that the program does not assign different meanings to any of the keys.

You have connected an external keyboard and the operating system displays one or more keyboard error messages.

The keyboard you connected may be defective or incompatible with the computer. Try using a different make of keyboard.

Nothing happens when you press the keys on the external keyboard.

You may have plugged the external keyboard in while the computer was turned on. Click **Start**, **Shut Down** or **Turn off computer,** and **Restart the computer** using the TouchPad on the internal keyboard. The computer will restart and recognize the device.

Display problems

Here are some typical display problems and their solutions:

The screen is blank.

Display Auto Off may have gone into effect. Press any key to activate the screen.

You may have activated the instant password feature by pressing Fn and F1 simultaneously. If you have registered a password, press any key, type the password and press Enter. If no password is registered, press any key. The screen reactivates and allows you to continue working.

If you are using the built-in screen, make sure the display priority is not set for an external monitor. To do this, press Fn and F5 simultaneously (once). If this does not correct the problem, press Fn and F5 simultaneously again to return the display priority to its previous setting.

HINT: Holding the Fn key and pressing the F5 key several times will advance you through the display options.

If you are using an external monitor:

❖ Check that the monitor is turned on.

❖ Check that the monitor's power cord/cable is firmly plugged into a working power outlet.

❖ Check that the cable connecting the external monitor to the computer is firmly attached.

❖ Try adjusting the contrast and brightness controls on the external monitor.

❖ Press Fn and F5 simultaneously to make sure the display priority is not set for the built-in screen.

The screen does not look right.

You can change the display settings by clicking a blank area of the desktop with the secondary control button, then clicking Properties. This opens the Display Properties dialog box. The Appearance tab of this dialog box allows you to choose the colors for the screen. The Settings tab allows you to choose the screen resolution.

The built-in screen flickers.

Some flickering is a normal result of the way the screen produces colors. To reduce the amount of flickering, try using fewer colors.

To change the number of colors displayed:

1 Point at the desktop and click with the secondary button.

2 Click **Properties**, and then the **Settings** tab.

3 Change the Colors option and click **OK**.

For more information, see Windows® Help.

A message tells you that there is a problem with your display settings and that the adapter type is incorrect or the current settings do not work with your hardware.

Reduce the size of the color palette to one that is supported by the computer's internal display.

To change the display properties:

1 Point at the desktop and click with the secondary button.

The Display Properties window appears.

2 Click **Properties**, then click the **Settings** tab.

3 Adjust the screen resolution and/or color quality.

4 Click **OK**.

The display mode is set to Simultaneous and the external display device does not work.

Make sure the external monitor is capable of displaying at resolutions of 800 x 600 or higher. Devices that do not support this resolution will only work in Internal/External mode, and not simultaneous mode.

Small bright dots appear on your TFT display when you turn on your computer.

Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. The small bright dots that appear on your display are an intrinsic characteristic of the TFT manufacturing technology.

NOTE   Over a period of time, and depending on the usage of the computer, the brightness of the LCD screen will deteriorate. This is an intrinsic characteristic of LCD technology.

The screen may be dimmer when the computer is operated on battery power. You may not be able to increase the brightness of the screen until you plug the computer into AC power again.

Disk drive problems

Problems with the hard disk or with a diskette drive usually show up as an inability to access the disk or as sector errors. Sometimes a disk problem may cause one or more files to appear to have garbage in them. Typical disk problems are:

You are having trouble accessing a disk, or one or more files appear to be missing.

Make sure you are identifying the drive by its correct name (A: or C:).

Error-checking

Run Error-checking, which analyzes the directories, files and
File Allocation Table (FAT) on the disk and repairs any
damage it finds:

To run Error-checking:

1   Click **Start**, then click **My Computer**.

2   Right-click the drive you want to check.

The drive's Properties box appears.

NOTE   This feature is not available for CD/DVD drives.

3   Click the **Tools** tab.

4   Click the **Check now** button.

The Check Disk All Apps box appears.

5   You can choose one or both options:

❖   Automatically fix file system errors

❖   Scan for and attempt recovery of bad sectors

6   Click **Start**.

Error-checking tests and repairs the disk.

Your hard disk seems very slow.

If you have been using your computer for some time, your
files may have become fragmented. Run Disk Defragmenter.
To do this, click **Start**, then click **All Programs**, point to
Accessories and **System Tools**, and click **Disk
Defragmenter**.

Your data files are damaged or corrupted.

Refer to your software documentation for file recovery
procedures. Many software packages automatically create
backup files.

You may also be able to recover lost data using utility software. Consult your network administrator.

Some programs run correctly but others do not.

This is probably a configuration problem. If a program does not run properly, refer to its documentation and check that the hardware configuration meets its needs.

A diskette will not go into the optional external diskette drive.

You may already have a diskette in the drive. Make sure the drive is empty.

You may be inserting the diskette incorrectly. Hold the diskette with the hub side facing down, and insert it so that the metal head window cover goes into the drive first.

The metal cover or a loose label may be obstructing the path into the drive. Carefully inspect the diskette. If the metal cover is loose, replace the diskette. If the label is loose, replace the label and try inserting the diskette again.

The computer displays the Non-system disk or disk error **message**.

If you are starting the computer from a diskette, the diskette in the drive does not have the files necessary to start the computer. Replace it with a bootable diskette.

The drive cannot read a diskette.

Try another diskette. If you can access the second diskette, the first diskette (not the drive) is probably causing the problem. Run Error-checking on the faulty diskette (for instructions, see "Disk drive problems" on page 210).

DVD-ROM or multi-function drive problems

You cannot access a disc in the drive.

Make sure the tray which holds the CD-ROM or DVD-ROM is closed properly. Press gently until it clicks into place.

Open the tray and remove the disc. Make sure the tray is clean. Any dirt or foreign object can interfere with the laser beam.

Examine the disc to see if it is dirty. If necessary, wipe it with a clean cloth dipped in water or a neutral cleaner.

Replace the disc in the tray. Make sure that the disc is lying flat, label side uppermost. Close the tray carefully, making sure it has shut completely.

You press the disc eject button, but the drive tray does not slide out.

Make sure the computer is connected to a power source and turned on. The DVD-ROM drive eject mechanism requires power to operate.

Make sure a program is not accessing the drive and preventing it from ejecting.

If you need to remove a disc and cannot turn on the computer (for example, if the battery is completely discharged), use a narrow object, such as a straightened paper clip, to press the manual eject button. This button is in the small hole next to the DVD-ROM eject button on the face of the DVD-ROM tray.

CAUTION Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer and damage it.

Some discs run correctly but others do not.

Check the type of disc you are using. The DVD-ROM drive
supports the Digital Versatile Disc (DVD) formats DVD-
ROM, DVD-R (read-only), plus CD-ROM, CD-R (read-
only), and CD-RW (read-only).

If the problem is with a data CD or DVD, refer to the
software's documentation and check that the hardware
configuration meets the program's needs.

**The disc will not come out of the drive when you click
the eject button on the screen.**

Press the button on the DVD-ROM drive itself. For additional
information, see "You press the disc eject button, but the
drive tray does not slide out." on page 213.

Sound system problems

You do not hear any sound from the computer.

Adjust the volume control.

Try pressing Fn + Esc to see if volume mute is disabled.

If you are using external headphones or speakers, check that
they are securely connected to your computer.

The computer emits a loud, high-pitched noise.

This is feedback between the microphone and the speakers. It
occurs in any sound system when input from a microphone is
fed to the speakers and the speaker volume is too loud. Adjust
the volume control.

PC Card problems

PC Cards (PCMCIA-compatible) include many types of
devices, such as a removable hard disk, additional memory,
or a pager.

Most PC Card problems occur during installation and setup
of new cards. If you are having trouble getting one or more of

these devices to work together, several sections in this chapter may apply.

Resource conflicts can cause problems when using PC Cards. See "Resolving a hardware conflict" on page 200.

Card Information Structure

When you insert a PC Card into a slot, the computer attempts to determine the type of card and the resources it requires by reading its Card Information Structure (CIS). Sometimes the CIS contains enough information for you to use the card immediately.

Other cards must be set up before you can use them. Use the Windows® XP Tablet PC Edition PC Card (PCMCIA) Wizard to set up the card. Refer to your Microsoft® documentation for more information, or refer to the documentation that came with the PC Card.

Some card manufacturers use special software called *enablers* to support their cards. Enablers result in nonstandard configurations that can cause problems when installing the PC Card.

If your system does not have built-in drivers for your PC Card and the card did not come with an operating system driver, it may not work under the operating system. Contact the manufacturer of the PC Card for information about using the card under the operating system.

PC Card checklist

❖ Make sure the card is inserted properly into the slot.

❖ Make sure all cables are securely connected.

❖ Occasionally a defective PC Card slips through quality control. If another PCMCIA-equipped computer is available, try the card in that machine. If the card malfunctions again, it may be defective.

Resolving PC Card problems

Here are some common problems and their solutions:

The slot appears to be dead. PC Cards that used to work no longer work.

Check the PC Card status:

1 Click **Start**.

2 Click **My Computer** icon with the secondary button, then click **Properties**.

The System Properties dialog box appears.

3 Click the **Hardware** tab.

4 Click the **Device Manager** button.

5 Double-click the **PCMCIA adapter**.

6 Double-click the appropriate PC Card.

The operating system displays your PC Card's Properties dialog box, which contains information about your PC Card configuration and status.

The computer stops working (hangs) when you insert a PC Card.

The problem may be caused by an I/O (input/output) conflict between the PCMCIA socket and another device in the system. Use Device Manager to make sure each device has its own I/O base address. See "Fixing a problem with Device Manager" on page 202 for more information.

Since all PC Cards share the same socket, each card is not required to have its own address.

Hot swapping (removing one PC Card and inserting another without turning the computer off) fails.

Follow this procedure before you remove a PC Card:

1 Double-click the **PC Card** icon on the taskbar.

2   Click **Safely remove** *xxxx*, where *xxxx* is the identifier for your PC Card.

The operating system displays a message that you may safely remove the card.

3   Remove the card from the slot.

The system does not recognize your PC Card.

Refer to the PC Card documentation.

Removing a malfunctioning card and reinstalling it can correct many problems.

A PC Card error occurs.

Reinsert the card to make sure it is properly connected.

If the card is attached to an external device, check that the connection is secure.

Refer to the card's documentation, which should contain a troubleshooting section.

Printer problems

This section lists some of the most common printer problems:

The printer will not print.

Check that the printer is connected to a working power outlet, turned on and ready (on line).

Check that the printer has plenty of paper. Some printers will not start printing when there are just two or three sheets of paper left in the tray.

Make sure the printer cable is firmly attached to the computer and the printer.

Run the printer's self-test to check for any problem with the printer itself.

Make sure you installed the proper printer drivers, as shown in "Setting up a printer" on page 67 or in the instructions that came with the printer.

You may have connected the printer while the computer is on. Disable Stand By mode, turn off the computer, and turn off the printer. Turn the printer back on, make sure it is on line, then turn the computer back on.

Try printing another file. For example, you could create and attempt to print a short test file using Notepad. If a Notepad file prints correctly, the problem may be in your original file.

If you cannot resolve the problem, contact the printer's manufacturer.

The printer will not print what you see on the screen.

Many programs display information on the screen differently from the way they print it. See if your program has a print preview mode. This mode lets you see your work exactly as it will print. Contact the software manufacturer for more information.

Modem problems

This section lists common modem problems:

The modem will not receive or transmit properly.

Make sure the cable from the modem to the telephone line is firmly connected to the computer's modem port and the telephone line jack.

Check the port settings to make sure the hardware and software are referring to the same COM port. See "Determining the COM port" on page 136.

Check the communications parameters (baud rate, parity, data length and stop bits) specified in the communications program. It should be set up to transmit at 300, 1200, 2400, 4800, 9600, 14400, 28800, 33600 bps (bits per second) or higher. Refer to the program's documentation and the modem manual for information on how to change these settings.

The modem is on, set up properly and still will not transmit or receive data.

Make sure the line has a dial tone. Connect a telephone handset to the line to check this.

The other system may be busy or off line. Try making a test transmission to someone else.

For more information regarding your system's V.92 modem, visit the Toshiba web site at pcsupport.toshiba.com.

Internet Problems

My Internet connection is very slow.

Many factors contribute to the speed with which you can surf the Internet. They include: modem speed, time of day (when everyone else is surfing, your access can be slow), and popularity of the site. If accessing a particular site is very slow, try later.

My browser cannot find the URL address I typed in.

Make sure you separated the domain names of the address with the forward slash(/). Check the spelling of each name and the syntax of the address carefully. A single incorrect letter, missed period ("dot") or other mistake makes it impossible for your browser to locate the site.

My browser can not find a site I bookmarked.

The World Wide Web is constantly changing. A site you bookmarked yesterday may not be available today or its server may be down to temporary repair. Try again later.

DVD operating problems

If you experience a problem playing DVDs, you may be able to fix the problem yourself.

For general problems playing a DVD title, try the following steps:

1 Verify that the disc is in a format that the drive supports.

2 Ensure that the disc is properly inserted in the drive tray.

3 Ensure that the Display properties are not True Color (24-bit). If it is set to 24-bit color, there will be a video format error. To verify your display settings:

   ❖ Click **Start**, **Control Panel**, **Appearance and Themes**, and double-click **Display**.

   ❖ Click on the **Settings tab** and check the **Color Palette**. It should be set to **High Color** (16-bit).

   ❖ If it is not set to High Color, change the settings to **16-bit color** and click **OK**.

4 Clean the disc and try again.

   A dirty drive can also cause audio problems. If you have tried several discs and all fail, consider sending your drive to an authorized service provider to get it cleaned.

5 Verify that your computer recognizes your DVD-ROM drive. To do this:

   Double-click the **My Computer** icon on the desktop. The DVD-ROM drive should appear in the list.

6 See "Checking device properties" on page 203 for instructions on using Device Manager to view the DVD-ROM properties.

7 Check the Toshiba Web site for new information on DVD-ROM drives and their operation.

A blank screen appears while watching a DVD-ROM movie or title.

Disable the Shut off Monitor feature in the Display Properties using the following steps:

1 Click the secondary mouse button on a blank area of the desktop.

2 Click **Properties**.

3 Click the **Screen Saver** tab.

4 Deselect **Shut off Monitor**.

Jumping video lines appear around the DVD-ROM video window.

To change the screen's display resolution:

1 Click **Start**, **Control Panel**.

The Control Panel window appears.

2 Click **Appearance and Themes**, and double-click the **Display** icon.

The Display Properties dialog box appears.

3 Click the **Settings** tab.

4 Next to the words **Desktop Area**, move the slider to a lower setting, such as 800 x 600 or 640 x 480.

5 Click **OK**.

DVD titles, games, or applications appear distorted.

Having Stretch enabled when your video resolution is set to 640 x 480 or 800 x 600 can cause distortion. To disable Stretch, follow the instructions below:

1 Right-click the **Desktop**, select **Properties**.

2 Select the **Settings** tab.

3 Select the **Advanced Flat Panel** tab.

4 Click **Disable Display Stretch Feature**.

5 Click **OK**.

The screen saver runs while you are watching a movie or title.

If the screen saver is enabled, it runs on top of any movie or title you are watching. To disable the screen saver:

1 Click **Start**, **Control Panel**.

The Control Panel window appears.

2 Click **Appearance and Themes**, and double-click the **Display** icon.

The Display Properties dialog box appears.

3 Click the **Screen Saver** tab.

In the Screen Saver list, the current screen saver is highlighted.

4 Click the down arrow at the right of the current screen saver name.

A list of screen savers displays.

5 Click and hold the up arrow by the list or move the slide to the top.

6 Click **None**.

7 Click **OK**.

Develop good computing habits

Make sure you are prepared.

Save your work frequently.

You can never predict when your computer will lock, forcing you to close a program and lose unsaved changes. Many software programs build in an automatic backup, but you should not rely solely on this feature. Save your work! See "Computing tips" on page 78 for instructions.

On a regular basis, back up the information stored on your hard disk.

Here are some ways you can do this:

❖   Copy files to diskette.

❖   Connect a tape drive to the system and use specialized software to copy everything on the hard disk to a tape.

❖   Connect your computer to the office network and copy files to your network partition.

Some people use a combination of these methods, backing up all files to tape weekly and copying critical files to diskette on a daily basis.

If you have installed your own programs, you should back up these programs as well as your data files. If something goes wrong that requires you to reformat your hard disk and start again, reloading all your programs and data files from a backup source will save time.

Read the user's guides.

It is very difficult to provide a fail-safe set of steps you can follow every time you experience a problem with the computer. Your ability to solve problems will improve as you learn about how the computer and its software work together.

Get familiar with all the user's guides provided with your computer, as well as the manuals that come with the programs and devices you purchase.

Your local computer store or book store sells a variety of self-help books you can use to supplement the information in the manuals.

If you need further assistance

If you have followed the recommendations in this chapter and are still having problems, you may need additional technical assistance. This section contains the steps to take to ask for help.

Before you contact Toshiba

Since some problems may be related to the operating system or the program you are using, it is important to investigate other sources of assistance first.

Try the following before you contact Toshiba:

❖ Review the troubleshooting information in your operating system documentation.

❖ If the problem occurs while you are running a program, consult the program's documentation for troubleshooting suggestions. Contact the software company's technical support group for their assistance.

❖ Consult the dealer from whom you purchased your computer and/or program. Your dealer is your best source for current information.

Detailed system specifications are available at www.ts.toshiba.com by selecting your particular product and model number, clicking **GO**, and then clicking the **Detailed Specs** link from the menu on the left, or just refer to the computer documentation shipped with your product.

For the number of a Toshiba dealer near you in the United States, call: (800) 457-7777.

Contacting Toshiba

If you still need help and suspect that the problem is hardware-related, Toshiba offers a variety of resources to help you.

Toshiba's Technical Support Website

For technical support, or to stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at pcsupport.toshiba.com.

Toshiba voice contact

Before calling Toshiba, make sure you have:

❖ Your computer's serial number.

❖ The computer and any optional devices related to the problem.

❖ Backup copies of your Windows® operating system and all other preloaded software on your choice of media.

❖ Name and version of the program involved in the problem along with its installation media.

❖ Information about what you were doing when the problem occurred.

❖ Exact error messages and when they occurred.

For technical support, call the Toshiba Global Support Centre:

Within the United States at (800) 457-7777

Outside the United States at (949) 859-4273

Other Toshiba Internet Web sites

toshiba.com	Worldwide Toshiba corporate site
computers.toshiba.com	Marketing and product information in the USA
www.toshiba.ca	Canada
www.toshiba-Europe.com	Europe
www.toshiba.co.jp/index.htm	Japan
http://servicio.toshiba.com	Mexico and all of Latin America

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9740 Irvine Blvd.
Irvine, California 92618
USA

800-457-7777 (within the US)

949-859-4273 (outside of the US -
this call may incur long-distance
charges)

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Toshiba de México S.A. de C.V.
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CP 11000 Mexico, DF.

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United Kingdom
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(U.K) Ltd.
Toshiba Court
Weybridge Business Park
Addlestone Road
Weybridge, Surrey KT15 2UL
United Kingdom

United States
Toshiba America Information
Systems, Inc.
9740 Irvine Boulevard
Irvine, California 92618
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The Rest of Europe
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D-4-1460 Neuss
Germany

For more information on additional Toshiba worldwide
locations, please visit: www.toshiba.co.jp/index.htm.

Appendix A

Hot Keys

Hot keys are keys that, when pressed in combination with the Fn key, turn system functions on and off. Hot keys have a legend on the key indicating the option or feature the key controls.

Volume Mute
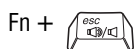
Fn + [esc key image]   This hot key enables/disables volume mute on your computer.

When volume mute is enabled, no sound will come from the speakers or headphones.

Password security
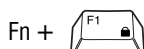
Fn + [F1 key image]   This hot key blanks the display.

Without a password

The Fn + F1 key combination turns off the display and activates instant security. Using the pointing device or any key will make the display reappear.

With a password

The Fn + F1 key combination turns off the display and activates instant security. Type either a user or supervisor password and press Enter.

If you set a blank screen saver, pressing the Fn + F1 key combination to activate instant security will cause the screen to go blank. Moving the pointing device or pressing a key turns the screen back on. An "Unlock Computer" window appears, prompting you for a password. After typing in the password, press Enter.

NOTE	To activate the password feature, you must first enable it by using Toshiba Password Utilities. Refer to "Using passwords in the Windows ® operating system" on page 183.

Power usage mode

Fn + ⌨ This hot key displays the power usage pop-up window and cycles through the battery save modes.
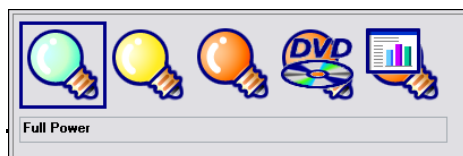
Sample power usage modes

The properties of each mode are set in the Toshiba Power Management utility. For more information, see "Power Management" on page 166.

Stand By Mode

Fn + [F3 key image] This hot key puts the computer into Stand By mode.

❖ A message box is displayed by default to confirm that the computer is going into Stand By mode. You can choose not to display this message box.
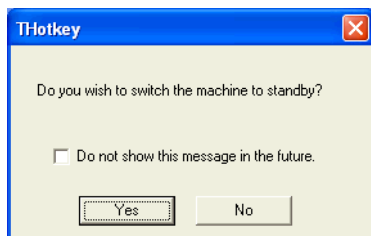
Sample Stand By confirmation box

❖ For more information about Stand By mode, please see "Using Stand By mode" on page 106.

Hibernation mode
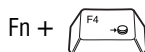
Fn + [F4 key]   This hot key puts the computer into Hibernation mode.

❖ If Hibernation mode is enabled (the default) a message box is displayed by default to confirm the computer is going into Hibernation mode. You can choose not to display this message box.
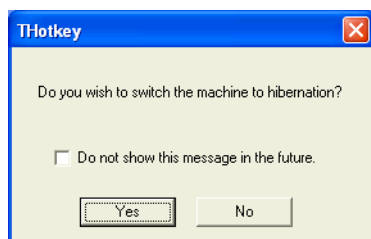
Sample Hibernation confirmation box

❖ If Hibernation mode is disabled, this hot key will not respond. For more information on Hibernation mode, see "Using Hibernation mode" on page 103.

Display modes

Fn + [F5] This hot key cycles through the power-on display options.

The display modes are:

❖ Built-in display panel only

❖ Built-in display panel and external monitor simultaneously

❖ External monitor only

Sample display options window

Fn + [spacebar]
(spacebar) Use this hot key to change the screen resolution on the fly; from 800 x 600 to 1024 x 768 or 1450 x 1050.

Display brightness

Fn + [F6] This hot key decreases the screen brightness.

Fn + [F7] This hot key increases the screen brightness.

Wireless device enable/disable

Fn + [F8 key image]
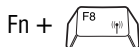
This hot key enables and disables the optional wireless devices installed in your computer.

The wireless modes are:

❖ All disabled—This disables both the Bluetooth and Wi-Fi modules.

❖ Wi-Fi enabled—This enables just the Wi-Fi module.

❖ Bluetooth enabled—This enables just the Bluetooth module.

❖ All enabled—This enables both Bluetooth and Wi-Fi.

Disabling or enabling the TouchPad

Fn + [F9 key image]
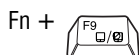
This hot key disables or enables the TouchPad.

To use the TouchPad, see "Using the TouchPad™" on page 57.

Sample disable and enable TouchPad window

Zooming Applications In/Out
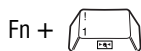
Fn + ⌨️ This hot key turns the Zooming utility to zoom-in. For more information, see "TOSHIBA Zooming Utility" on page 180.
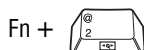
Fn + ⌨️ This hot key turns the Zooming utility to zoom-out. For more information, see "TOSHIBA Zooming Utility" on page 180.

Keyboard hot keys
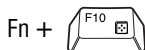
Fn + ⌨️ This hot key turns the cursor control overlay on and off.
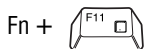
Fn + ⌨️ This hot key turns the numeric overlay on and off.
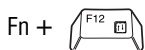
Fn + ⌨️ This hot key turns the scroll lock feature on and off.

Fn + (spacebar) This hot key toggles the resolution between SVGA (800 x 600), XGA (1024 x 768), and SXGA+ (1400 x 1050).

Appendix B

Power Cord/Cable Connectors

Your notebook computer features a universal power supply you can use worldwide. This appendix shows the shapes of the typical AC power cord/cable connectors for various parts of the world.

USA and Canada

UL approved
CSA approved

United Kingdom

BS approved

Australia
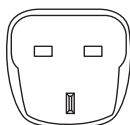
AS approved

Europe

VDA approved
NEMKO approved

Appendix C

Using ConfigFree™ with your Toshiba Computer

ConfigFree™ is a set of utilities that makes it easy to control communication devices and network connections. ConfigFree also lets you identify communication problems and create profiles for easy switching between locations and communication networks.

The ConfigFree utilities include the following:

❖ Connectivity Doctor—The Connectivity Doctor utility is used to analyze network connections and fix networking problems with your notebook computer. For more information, see "Connectivity Doctor" on page 238.

❖ Search for Wireless Devices—The Search for Wireless Devices utility searches for wireless LAN and Bluetooth devices used in the neighborhood, and displays information about them on a virtual map. For more information, see "Search for Wireless Devices" on page 241.

❖ Profile Settings—The Profiles utility lets you switch between network configurations. For more information, see "Profile Settings" on page 243.

Getting Started

This section contains information about the ConfigFree main screen, and how to start and setup ConfigFree.

For more detailed information on setting up and using ConfigFree, see the Help File included in the application.

Starting ConfigFree

To start ConfigFree, be sure the computer has a wired or wireless connection. Then perform any of the following steps:

❖ (Microsoft® Windows® XP or 2000) Click the **Start** button, and select **All Programs**, **TOSHIBA**, **Networking**, **ConfigFree**.

❖ Double-click the **ConfigFree** icon on the taskbar.

❖ Press the **TOSHIBA Assist** button (if applicable to your system) to open the TOSHIBA Assist, and then click the **ConfigFree** icon.

❖ Click the **ConfigFree** icon on the taskbar, and then click the desired utility.

NOTE   If your computer is not connected to a network, the ConfigFree icon on the taskbar is displayed with an "X."

When you start a search for wireless devices, ConfigFree Launcher displays on your computer desktop. You can then click the appropriate icon on the Launcher to start the desired ConfigFree utilities.

Wireless LAN

Bluetooth

Connectivity Doctor

Profiles
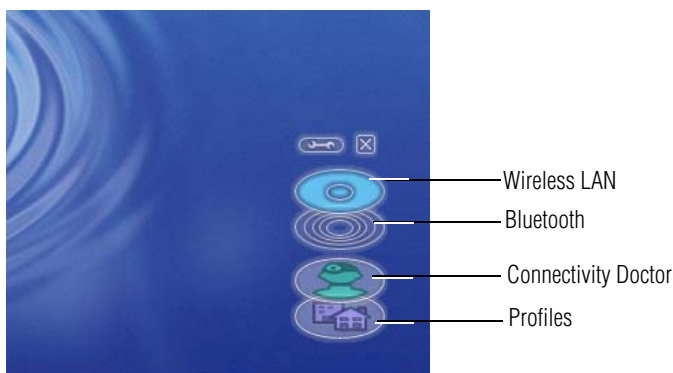
Sample ConfigFree Launcher

ConfigFree Utilities

Connectivity Doctor

The Connectivity Doctor lets you analyze your network connections and fix network-connection problems. Using Connectivity Doctor, you can view detailed network information by simply moving the mouse pointer.

The Connectivity Doctor works with the following network devices:

❖ Wired and wireless network devices

❖ Routers, hubs, and bridges

❖ Access points
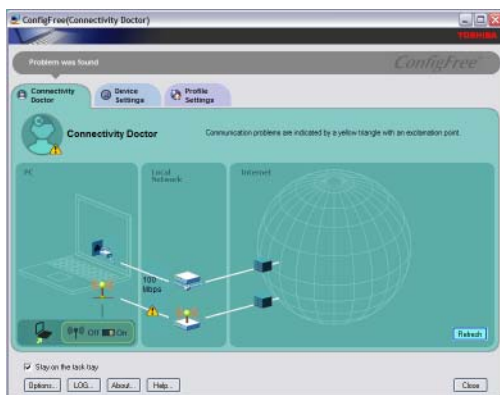
Sample Connectivity Doctor screen

Moving the mouse pointer over a wired or wireless network device icon displays information about the device, such as its IP address, subnet mask, and MAC address. A wireless network device also shows information such as the network SSID and the device's Wired Equivalent Privacy (WEP) key settings.
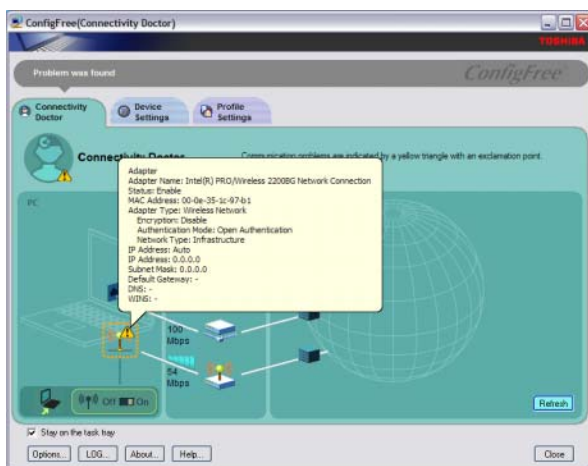
Sample viewing device information

If a problem, or potential problem, is detected, a triangle containing an exclamation point appears in the Connectivity Doctor screen and an orange frame describes the relevant location. You can then view a possible cause and solution for the problem by clicking the exclamation point.

For example, if the connection to a wireless network cannot be established because the wireless communication switch is turned off, an exclamation point appears next to the wireless communication switch. Clicking the exclamation point displays a description of the problem and a solution.

The following checkboxes and buttons are provided on the Connectivity Doctor screen:

Stay on the task tray	When checked, the ConfigFree icon resides in the system tray.
Options	Displays ConfigFree setting screen.
Log	Lets you create a diagnostic log, view a history of log files, or delete the history. Log files are saved as CFhtml*xxxxx*.htm, where *xxxxx* is the creation date and time. They reside in the folder: C;\Documents and Settings*username*\Local Settings\Temp
About	Displays the version of Connectivity Doctor.
Help	Displays online help.
Close	Closes the Connectivity Doctor screen.

Search for Wireless Devices

The Search for Wireless Devices utility searches for wireless LAN devices and Bluetooth devices currently used in the neighborhood, and displays information about them on a virtual map.

To search for wireless devices:

1   Click the ![icon] icon in the system tray.

2   Click **Search for Wireless Devices**.

A virtual map appears with a graphical representation of the wireless devices that have been detected.

NOTE   Search for Wireless Devices can also be started from the ConfigFree Launcher.

For Wi-Fi networks, the intensity of a signal is displayed in five levels or "bands." The signal from the connected access point is displayed in the bands surrounding the PC icon at the center of the map. Placing the pointer over the displayed "point of light" shows detailed information about the wireless device.

NOTE   The wireless device shown near the center of the map is not necessarily near your notebook computer. If a wireless device located a distance away also has a strong signal, it appears near the center of the map as well.
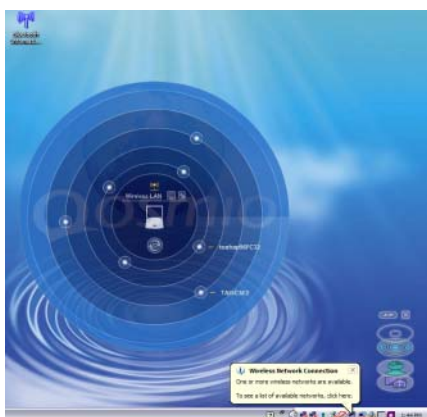
Sample viewing Wi-Fi devices

The following screen shows an example of Bluetooth devices that are detected. As with the Wi-Fi screen, moving the mouse pointer over a device icon displays information about the device.
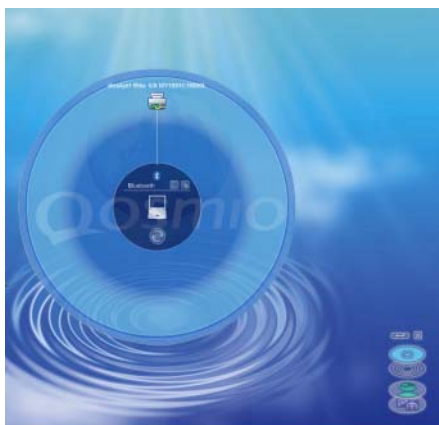
Sample viewing Bluetooth devices

You can connect to devices shown on the Bluetooth map:

1 Click the icon of a Bluetooth device.

2 Click your own computer at the center of the map.

3 Configured devices are automatically connected. Devices not yet configured launch the Add New Connection Wizard, where you can configure and connect to the device.

Profile Settings

The Profile Settings utility lets you save network settings in "profiles." ConfigFree profiles are useful for easily switching network settings and devices.You can switch network settings simply by selecting the profile with the desired settings.

If you visit a client company occasionally, for example, you can set up a profile to match that environment and connect to the network. Similarly, users who access networks in the office and at home can set up profiles to handle these networking environments.

A profile contains the currently configured network settings on the computer, as well as information about any network devices. The following settings can be saved (or "captured") in a profile:

❖ **Internet settings** — includes LAN settings (proxy server settings) and the address of a home page that opens automatically when Internet Explorer starts.

❖ **Devices** — lets you enable or disable settings of wired and wireless network devices, and set the power status of Bluetooth antennas.

❖ **TCP/IP settings** — includes DHCP, IP address, subnet mask, default gateway, DNS server, and WINS server settings.

❖ Personal firewall settings for Internet connections.

❖ Dial-up connection settings for the default connection.

❖ File and printer sharing settings.

❖ Printer settings for the default printer.

To create a profile:

1   Click the ![icon] icon in the system tray.

2   Move the pointer to **Profile**.

3   Click **Add**. The Add Profile screen appears.

4   Select **Capture** and click **OK**. The Add Profile screen appears.

5   Enter the name of the profile you want to create.

6   Enter any optional comments, if desired.

7   Click **Change Icon** and select an icon for this profile.

8   Under **Captured Items**, select the items you want to capture for this profile.

9   If connecting with a wireless network, select the desired **Auto Switch Settings**. (These options are unavailable if wireless devices have been disabled.)

10 Under **Execute this program after switching**, click the **Browse** button and select the program, file, or Web site URL that is to start after switching to this profile.

        For example to have Internet Explorer start in Windows XP after switching profiles, type:
        C:\Program Files\Internet Explorer\IEXPLORE.EXE

11 Click **OK**.
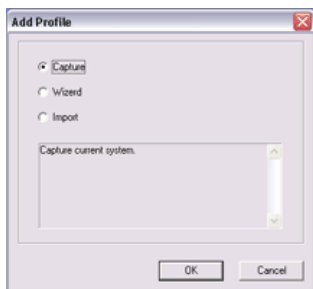
Sample Add Profile screen

NOTE   The online help provides real-world examples of setting up profiles for different networking environments.

After you set up one or more profiles, you can check their settings and fine-tune them as necessary. Profiles can also be imported and exported. This feature is useful when transferring profile settings to other computers. For more information about modifying, importing, and exporting profiles, refer to the online help.

Quick Connect

The Quick Connect feature switches the Wireless LAN connection to connect to a Toshiba Wireless Projector. Once the projector utility is installed, launching the Quick Connect utility automatically opens the Wireless Data Projector Application. There you can configure how you would like to use the projector.

To connect to a Toshiba Wireless Projector:

1   Click the icon in the system tray.

2   Move the mouse pointer to **Toshiba Wireless Projector (DPJ)**, then click **Connect**.

Launching Quick Connect prevents you from using the network to connect to a Toshiba Wireless Projector when the wireless LAN Configuration is set to Ad hoc. If you are connected to an access point, the connection is broken and re-established later.

To review the current Toshiba Wireless Projector settings and change them if necessary:

1   Click the icon in the system tray.

2   Move the mouse pointer to **Toshiba Wireless Projector (DPJ)**, then click **Settings**. The Quick Connect properties dialog box appears.

3   Complete the settings. Refer to the online help if necessary.

4   Click **OK**.

NOTE   The default connection setting is for Ad hoc mode, therefore, if the setting on the Toshiba Wireless Projector is in Infrastructure mode, it will not connect, however; you can change the settings to Infrastructure mode to match the settings on the projector.

Sample Projector icon when connected with Quick Connect

If the wireless mode for the wireless setting is set for 5 GHz (802.11a), Quick Connect changes this mode to 2.4 GHz (802.11b) and then connects to the projector.

The wireless LAN configuration returns to the settings that were last used before the Quick Connect function was started:

❖   If the Toshiba Wireless Projector utility is closed.

❖   If you select Toshiba Wireless Projector (DPJ) from the ConfigFree tray menu (this disconnects the wireless LAN connection).

❖ If you select a profile from the ConfigFree tray menu or when you disable a wireless device.

❖ If you close ConfigFree.

Using the Automatic Switch

The Automatic Switch feature allows the computer to automatically switch profiles the next time it is powered on. This feature is particularly useful if you want your computer to automatically switch from the network configuration you use in your office to the one you use at home.

The Auto Switch feature contains options for automatically switching between wired and wireless devices. With these options, the computer automatically switches to a wireless LAN network when the cable of the wired LAN network is removed from the computer. When the cable is reconnected, the connection to the wired LAN is re-established.

To use the Automatic Switch feature:

1   Right-click the ![icon] icon in the system tray.

2   Click **Auto Switch**. The Auto Switch dialog box appears.

3   Check **Enable Wireless when cable disconnect occurs**.

4   Click **OK**.

NOTE   If your computer is connected to multiple wireless LAN devices, the Auto Switch (SSID) feature is disabled. To enable this feature, only one wireless LAN device can be used.

Semi-Automatic Switch Feature

The Semi-Automatic feature alerts you when the computer connects to a Service Set Identifier (SSID) stored in a profile, When the computer connects to the designated SSID, a notification window appears. You can then click this window to connect using the settings specified in the profile.

To use the Semi-Automatic Switch feature:

1   Right-click the icon in the system tray.

2   Click **Auto Switch**. The Auto Switch dialog box appears.

3   Select the **Auto Switch (SSID)** tab.

4   Select the profile to be automatically selected when the SSID is detected, then click **Add**. The profile is moved to the **List of target SSIDs and profiles**.

5   Repeat the previous step for each additional profile you want to select.

6   Select **Automatically switch profiles when connected to this SSID**.

7   Check **Automatically switch profile when connected to this SSID**.

8   Click **OK**.

The computer is now configured to use the Semi-Automatic Switch feature. When the computer connects to an SSID in a profile, a display notification window appears. You can then click **Switch** on the window to switch profiles. You can also set the option for having the switch be automatic without the need for a notification.

NOTE   Several profiles can be defined for a single SSID. In this case, several notification windows are displayed. By clicking these windows, you can switch to the profile for that location.

Glossary

Acronyms

The following acronyms may appear in this user's guide.

AC	alternating current
BIOS	basic input/output system
bps	bits per second
CD	compact disc
CD-ROM	compact disc read-only memory
CD-RW	compact disc rewrite memory
CMOS	complementary metal-oxide semiconductor
COM1	communications port 1 (serial port)
COM2	communications port 2 (serial port)
CPU	central processing unit
DC	direct current

249

DMA	direct memory access
DIMM	dual inline memory module
DOS	disk operating system
DPI	dots per inch
DSTN	dual supertwist nematic
DVD	digital versatile (or video) disc
DVD-ROM	digital versatile (or video) disc read-only memory
ECP	enhanced capabilities port
EPROM	erasable programmable read-only memory
FAT	file allocation table
FCC	Federal Communications Commission
GB	gigabyte
HDD	hard disk drive
HTML	Hypertext Markup Language
IEEE	Institute of Electrical and Electronics Engineers
I/O	input/output
IRQ	interrupt request
ISP	Internet service provider
KB	kilobyte
LAN	local area network
LCD	liquid crystal display
LPT1	line printer port 1 (parallel port)
LSI	large-scale integration
MB	megabyte
MIDI	Musical Instrument Digital Interface
PC	personal computer
PCI	Peripheral Component Interconnect
PCMCIA	Personal Computer Memory Card International Association
RAM	random access memory

RFI	radio frequency interference
ROM	read-only memory
RTC	real-time clock
SCSI	small computer system interface
SDRAM	synchronous dynamic random access memory
SRAM	static random access memory
SVGA	super video graphics adapter
TFT	thin film transistor
USB	universal serial bus
URL	uniform resource locator
WAN	wide area network
www	World Wide Web

Terms

The following terms may appear in this user's guide.

A

active-matrix display — A liquid crystal display (LCD) made from an array of liquid crystal cells using active-matrix technology. Also known as a "TFT display," in its simplest form there is one thin film transistor (TFT) for each cell. This type of display works well with notebook computers because of its shallow depth and high-quality color. Active-matrix displays are viewable from wider angles than most passive-matrix displays.

adapter — A device that provides a compatible connection between two units. For example, the computer's internal display adapter receives information from the software and translates it into images on the screen. An adapter can take a number of forms, from a microprocessor to a simple connector. An intelligent adapter (one that is capable of doing some processing) may also be called a controller.

alternating current (AC) — The type of power usually supplied to residential and commercial wall outlets. AC reverses its direction at regular intervals. Compare *direct current (DC)*.

application — A computer program that you use to perform tasks of a specific type. Applications include word processors, spreadsheets, and database management systems. See also *program*.

B **backup** — A copy of a file, usually on a removable disk, kept in case the original file is lost or damaged.

basic input/output system (BIOS) — See *BIOS*.

baud rate — The speed at which a communication device, such as a printer or modem, transmits information. Baud rate is the number of signal changes per second (not necessarily the same as bits per second). See also *bits per second*.

BIOS (basic input/output system) — Basic instructions, stored in read-only memory (ROM), containing the information the computer needs in order to check hardware and load the operating system when you start up the computer.

bit: — Short for "binary digit." A bit is the smallest unit of information used by a computer. A group of eight bits is a byte. See also *byte*.

bits per second (bps) — A way of measuring the speed at which information is passed between two devices. The basic measure used in modem communications, bps is similar, but not identical, to the baud rate. See also *baud rate*.

boot — To start the computer. The term "boot" originates from bootstrap program (as in "pulling itself up by its bootstraps"), a program that loads and initializes the operating system. See also *reboot*.

boot disk — See *system disk*.

boot priority (startup sequence) — The order in which the computer accesses its disk drives to locate the startup files. Under the default startup sequence, the computer looks for the startup files in the diskette drive before checking the hard disk.

bus — An electrical circuit that connects the central processing unit (CPU) with other parts of the computer, such as the video adapter, disk drives, and ports. It is the pathway through which data flows from one device to another. See also *bus speed*, *frontside bus*.

bus speed — The speed at which the central processing unit (CPU) communicates with the other parts of the computer.

byte — A sequence of eight bits. A byte is the smallest addressable unit of data. See also *bit, gigabyte, kilobyte*, *megabyte*.

C

cache — A section of very fast memory in which frequently used information is duplicated for quick access. Accessing data from cache is faster than accessing it from the computer's main memory. See also *CPU cache, L1 cache, L2 cache.*

CD — An individual compact disc. See also *CD-ROM*.

CD-ROM (compact disc read-only memory) — A form of high-capacity storage that uses laser optics instead of magnetic means for reading data. See also *CD*. Compare *DVD-ROM*.

central processing unit (CPU) — The chip that functions as the "brain" of the computer. It takes information from outside sources, such as memory or keyboard input, processes the information, and sends the results to another device that uses the information.

character — Any letter, number, or symbol you can use on the computer. Some characters are non-printing characters, such as a paragraph break in a word-processing program. A character occupies one byte of computer storage.

chip — A small piece of silicon containing computer logic and circuits for processing, memory, input/output, and/or control functions. Chips are mounted on printed circuit boards.

click — To press and release the primary control button adjacent to the TouchPad or the mouse button without moving the TouchPad or mouse. In the Windows® operating system, this refers to the TouchPad left control button or the left mouse button, unless otherwise stated. See also *double-click*.

color palette — A set of specified colors that establishes the colors that can be displayed on the screen at a particular time.

compatibility — The extent to which computers, programs, or devices can work together harmoniously, using the same commands, formats, or language as another.

configuration — (1) The collection of components that make up a single computer system. (2) How parts of the system are set up (that is, configured).

controller — A device that controls the transfer of data from a computer to a peripheral device and vice versa. For example, disk drives, monitors, keyboards, and printers all require controllers.

CPU — See *central processing unit (CPU).*

CPU cache — A section of very fast memory residing between the CPU and the computer's main memory that temporarily stores data and instructions the CPU will need to execute commands and programs. See also *cache, L1 cache, L2 cache.*

cursor — A symbol that indicates the current position on the screen. The shape of the cursor varies, depending on the program you are using and what you are doing.

D **default** — The setting selected by a program when the user does not specify an alternative setting.

device — A component attached to the computer. Devices may be external (outside the computer's case) or internal (inside the computer's case). Printers, disk drives, and modems are examples of devices.

device driver — A program (called a "driver") that permits a computer to communicate with a device.

dialog box — An on-screen window displayed by the operating system or a program giving a direction or requesting input from the user.

direct current (DC) — The type of power usually supplied by batteries. DC flows in one direction. Compare *alternating current (AC).*

direct memory access (DMA) — A dedicated channel, bypassing the CPU, that enables direct data transfer between memory and a device.

directory — See *folder.*

disable — To turn a computer option off. See also *enable.*

disc — A round, flat piece of metal, designed to be read from and written to by optical (laser) technology, and used in the production of optical discs, such as CDs and DVDs. Compare *disk.*

disk — A round, flat piece of material that can be magnetically influenced to hold information in digital form, and used in the production of magnetic disks, such as diskettes and hard disks. Compare *disc*. See also *diskette, hard disk.*

disk drive — The device that reads and writes information and programs on a diskette or hard disk. It rotates the disk at high speed past one or more read/write heads.

diskette — A thin, flexible disk in a protective jacket that stores magnetically encoded data. Diskettes can be removed from the computer and come in two sizes: 5.25-inch and 3.5-inch. Your computer uses 3.5-inch diskettes. See also *double-density diskette, high-density diskette.*

document — Any file created with an application and, if saved to disk, given a name by which it can be retrieved. See also *file*.

double-click — To press and release the primary control button adjacent to the TouchPad or the mouse button rapidly twice without moving the TouchPad or mouse. In the Windows® operating system, this refers to the TouchPad left control button or the left mouse button, unless otherwise stated.

double-density diskette — A 3.5-inch diskette that can hold up to 720 KB of information (half the capacity of a high-density diskette). See also *diskette, high-density diskette.*

download — (1) In communications, to receive a file from another computer through a modem or network. (2) To send font data from the computer to a printer. See also *upload*.

drag — To hold down the mouse button while moving the cursor to drag a selected object. In the Windows® operating system, this refers to the left mouse button, unless otherwise stated.

driver — See *device driver*.

DVD — An individual digital versatile (or video) disc. See also *DVD-ROM*.

DVD-ROM (digital versatile [or video] disc read-only memory) — A very high-capacity storage medium that uses laser optics for reading data. Each DVD-ROM can hold as much data as several CD-ROMs. Compare *CD-ROM*.

E   **emulation —** A technique in which a device or program imitates another device or program.

enable — To turn on a computer option. See also *disable*.

executable file — A computer program that is ready to run. Application programs and batch files are examples of executable files. Names of executable files usually end with a .bat or .exe extension.

expansion device — A device that connects to a computer to expand its capabilities. Other names for an expansion device are port expander, port replicator, docking station, or network adapter.

extension — See *file extension*.

external device — See *device.*

F   **file** — A collection of related information, saved on disk with a unique name. A file may be a program, information used by a program, or a document. See also *document.*

file allocation table (FAT) — The section of a disk that keeps track of the location of files stored on the disk.

file name — A set of characters that uniquely identifies a file within a particular folder. It consists of two parts: the actual name and the file name extension. See also *file extension*.

file extension — The three characters following the period (pronounced "dot") at the end of a file name. The extension indicates the type of file. Examples are .exe for program files and .hlp for help files. See also *file name.*

folder — Also called directory. A container for organizing files saved to a disk. A folder is symbolized on screen by a graphical image (icon) of a file folder. A folder can contain files and other folders.

format — (verb) To prepare a blank disk for use with the computer's operating system. Formatting creates a structure on the disk so the operating system can write information to the disk or read information from it.

frontside bus — The primary pathway (bus) between the CPU and the computer's main memory. Also called "system bus." See also *bus.*

function keys — The keys labeled F1 through F12, typically located on the keyboard. Their function is determined by the operating system and/or individual programs.

G

gigabyte (GB) — A unit of data equal to 1,073,741,824 bytes (1024 x 1024 x 1024 bytes). See also *byte.*

ground — A conductor to which all components of an electric circuit are connected. It has a potential of zero (0) volts, is connected to the earth, and is the point of reference for voltages in the circuit.

H

hard disk — A storage device composed of a rigid platter or platters that can be magnetically coded with data. Hard disks hold much more information than diskettes and are used for long-term storage of programs and data. The primary (or only) hard disk in a computer is usually fixed, but some computers have secondary hard disks that are removable. By default, the hard disk is referred to as drive C.

hardware — The physical components of a computer system. Compare *software.*

Hibernation — A feature of many Toshiba notebook computers that saves to the hard disk the current state of your work, including all open files and programs, when you turn the computer off. When you turn on the computer again, your work is returned to the same state it was when the computer was turned off. See also *Stand By, Suspend.*

high-density diskette — A 3.5-inch diskette that holds 1.44 MB of data. See also *diskette.*

hot key — (1) A feature in which certain keys in combination with the Fn key can set system options or control system parameters, such as the battery save mode. (2) A key or combination of keys that activates a memory resident program.

hot swapping — The ability to add or remove devices from a computer while the computer is running and have the operating system automatically recognize the change.

I **icon** — A small image displayed on the screen that represents a function, file, or program.

interlaced — A method of refreshing a computer screen, in which only every other line of pixels is refreshed. Interlaced monitors take two passes to create a complete screen image. Compare *non-interlaced.*

internal device — See *device.*

Internet — The decentralized, world-wide network of computers that provides electronic mail, the World Wide Web, and other services. See also *World Wide Web.*

K **keyboard shortcut** — A key or combination of keys that you use to perform a task instead of using a pointing device such as a mouse.

kilobyte (KB) — A unit of data equal to 1024 bytes. See also *byte*.

L **L1 (level one) cache** — Memory cache built into the processor to help improve processing speed. See also *cache, CPU cache, L2 cache.*

L2 (level two) cache — Memory cache installed on the motherboard to help improve processing speed. It is slower than L1 cache and faster than main memory. See also *cache, CPU cache, L1 cache.*

LAN (local area network) — A group of computers or other devices dispersed over a relatively limited area and connected by a communications link that enables any device to interact with any other on the network.

liquid crystal display (LCD) — A type of display that uses a liquid substance between two transparent electrode panels. When an electric current passes through the electrodes, the molecules in the liquid form a crystalline pattern that polarizes the light passing through it. A filter over the electrodes permits only non-polarized light to pass to the surface of the display, creating light and dark pixels.

load — To move information from a storage device (such as a hard disk) into memory for processing.

local area network — See *LAN*.

logical drive — A section of a disk that is recognized by the operating system as a separate disk drive. A system's logical drives may differ from its physical drives. For example, a single hard disk drive may be partitioned into two or more logical drives.

M **megabyte (MB)** — A unit of data equal to 1,048,576 bytes (1024 x 1024 bytes). See also *bytes.*

memory — Typically refers to the computer's main memory, where programs are run and data is temporarily stored and processed. Memory can be volatile and hold data temporarily, such as RAM, or it can be nonvolatile and hold data permanently, such as ROM. A computer's main memory is RAM. See *RAM*, *ROM*.

microprocessor — See *central processing unit (CPU).*

MIDI (Musical Instrument Digital Interface) — A standard for connecting musical instruments, synthesizers, and computers. The MIDI standard provides a way of translating music into a form computers can use, and vice versa.

modem — Short for "modulator/demodulator." A device that converts information from digital to analog and back to digital, enabling information to pass back and forth between digital computers and analog telephone lines.

motherboard — The main circuit board in the computer. It contains the processor, memory, and other primary components.

MS-DOS prompt — See *system prompt.*

multi-function drive — A DVD drive that can read and write to CD and DVD media.

multimedia — A combination of two or more media, such as sound, animation, and video in a computer program or presentation.

Musical Instrument Digital Interface — See MIDI.

N **network** — A collection of computers and associated devices that are connected by communications facilities. A network allows you to share data and peripheral devices, such as printers, with other users and to exchange electronic mail.

non-interlaced — A method of refreshing a computer screen, in which each pixel of every line is refreshed as the electron beam scans across and down the screen. Compare *interlaced.*

non-system disk — A disk for storing programs and data that cannot be used to start the computer. Compare *system disk*.

O

online — Available through the computer. Online may refer to information being read from your own computer's hard disk, such as online documentation or online help, or to information coming from another company on a company network or the Internet.

operating system — A set of programs that controls how the computer works. Examples of operating systems are the Windows® XP Tablet PC Edition and Windows® XP Home operating systems.

P

palette — See *color palette.*

parallel — Processes that occur simultaneously. In communications, it means the transmission of more than one bit of information at a time. On your computer, the parallel port provides a parallel communications interface between the computer and an appropriate device. Most modern printers are parallel. Compare *serial.*

password — A unique string of characters entered by a user to verify his or her identity to the computer or the network.

PC Card — A credit-card-sized expansion card designed to increase the capabilities of notebook computers. PC Cards provide functions such as modem, fax/modem, hard disk drive, network adapter, sound card, or SCSI adapter.

peripheral — Any device, such as a printer or joystick, that is attached to the computer and controlled by the computer's CPU.

pixel — Short for "picture element." The smallest dot that can be produced on a screen or printer.

Plug and Play — Generally, refers to the computer's ability to automatically configure itself to work with peripheral devices. When capitalized, refers to a standard that, when followed by a device manufacturer, allows a PC to configure itself automatically to work with the device.

pointing device — Any device, such as the TouchPad or a mouse, that enables you to move the cursor on the screen.

port — A socket on the computer where you plug in a cable for connection to a network or a peripheral device.

processor — See *central processing unit (CPU).*

program — A set of instructions that can be executed by a computer. The general classes of programs (also called software) are operating system, application, and utility. See also *operating system, application, utility.*

properties — The attributes of an object or device. For example, the properties of a file include the file's type, size, and creation date.

R **RAM (random access memory)** — *Volatile* memory that can be written to as well as read. By volatile, we mean that information in RAM is lost when you turn off your computer. This type of memory is used for your computer's main memory. See also *memory.* Compare *ROM.*

random access memory — See *RAM.*

read-only memory — See *ROM.*

reboot — See *boot*, *restart.*

removable disk — A disk that can be removed from a disk drive. A diskette is one example of a removable disk.

resolution — A measure of the sharpness of the images that can be produced by a printer or displayed on a screen. For a printer, resolution is expressed in dots per inch (dpi). For a screen, it is expressed as the number of pixels available horizontally and vertically.

restart — Synonymous with reboot. To reset the computer by reloading the operating system without turning the computer off. See also *boot.*

RJ11 — A modular connector used on most U.S. telephone systems and direct-connect modems. The RJ11 connector is a 6-wire connector.

ROM (read-only memory) — Non-volatile memory that can be read but not written to. By non-volatile, we mean that information in ROM remains whether or not the computer is receiving power. This type of memory is used to store your computer's BIOS, which is essential instructions the computer reads when you start it up. *See also BIOS, memory. Compare RAM.*

S

select — To highlight or otherwise specify text, data, or graphics with the intent to perform some operation on it.

serial — Processes that occur one at a time. In communications, it means the transmission of one bit at a time sequentially over a single channel. On your computer, the serial port provides a serial interface between the computer and an appropriate device. Compare *parallel*.

shortcut — See *keyboard shortcut*.

software — See *program*. Compare *hardware*.

Stand By — A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.

Suspend — A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.

system disk — A diskette that contains the operating system files needed to start the computer. Any diskette can be formatted as a system disk. A system disk is also called a "bootable disk" or a "startup disk." Compare *non-system disk*.

system prompt — The symbol (in the MS-DOS® operating system, generally a drive letter followed by a "greater than" sign) indicating where users are to enter commands.

T

Toshiba tablet pen — The writing instrument used with the tablet. It is stored on the right side of the computer.

TFT display — See *active-matrix display*.

U **universal serial bus (USB)** — USB is a serial bus that supports a data transfer rate of up to 480 Mbps (480 million bits per second). USB can connect up to 127 peripheral devices through a single all-purpose USB port. USB allows hot swapping of peripherals. See also *bus, hot swapping, serial.*

upload — To send a file to another computer through a modem or network. See also *download*.

USB — See *universal serial bus (USB)*.

utility — A computer program designed to perform a narrowly focused operation or solve a specific problem. Utilities are often related to computer system management.

W **Web** — See *World Wide Web.*

Wi-Fi — A trademarked term by the Wi-Fi Alliance which stands for Wireless Fidelity, and is another term for the communication protocol to permit an Ethernet connection using wireless communication components.

World Wide Web (www) — The worldwide network of Web sites linked together over the Internet. A user of the Web can jump from site to site regardless of the location of the computer hosting the site. See also *Internet.*

Index